

# ***Airman-Scholar***

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**Air Forces  
at Peace:**

**Focus on Asia**



## Cover Illustrations

**Front**—Three views of the United States and Asia:

- a) Tech. Sgt. Kohichirou Higashi, Japan Air Self Defense Force, and Airman First Class Tommy Simpson, US Air Force, refuel JASDF fighters at Andersen AFB during Exercise Cope North Guam '99, June 1999 (USAF photo by Master Sgt. Val Gempis)
- b) Secretary of Defense and Mrs. William Cohen are greeted by Minister of National Defense General and Mrs. Chi Haotian at HQ, Ministry of National Defense in Beijing, China, 12 July 2000. (DoD photo by Helene C. Stickkel)
- c) Soldiers from the US Army's 6th Light Infantry Division and the Royal Thai Army's 5th Long Range Reconnaissance Company share a traditional-style Thai meal at Nakhon Si Thammarat, Thailand, during Exercise Cobra Gold, 1 May 1996. (DoD photo by Petty Officer 2nd Class Gloria Barry, USN)

**Back**—*Colonial Winter* by Sarah Albright, USAFA '01. Courtesy USAF Academy Department of English and Fine Arts.

# ***Airman-Scholar***

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## From the Editor

### Air Forces at Peace: Focus on Asia

The Air Force is at peace – although airmen go into harm's way everyday – and for that we owe much to the dedicated service of our current and past military service men and women. This issue of *Airman-Scholar* looks at various aspects of this peace by first turning an investigative eye toward Asia, the region many believe will pose the greatest challenge to the United States in the 21<sup>st</sup> century, and then by looking at some of the functions and prospects of the US Air Force itself.

The rich history, dynamic economies, and varied polities of Asia lead to a number of critical security concerns. Our lead article is by Dr. William Berry, Visiting Professor of the 34<sup>th</sup> Education Group at the US Air Force Academy and former head of the Academy's Department of Political Science. He describes in detail the development of the Southeast Asia sub-region and its attempts at regional cooperation under the aegis of ASEAN. While noting continuing difficulties, Dr. Berry applauds the cooperative efforts thus far and believes they are in the national security interests of the United States. A second article on Asia is by Lieutenant Colonel Michael R. Boera, the 2<sup>nd</sup> Group Commander of the Cadet Wing at the Academy, on the air force of the Chinese People's Republic. In an in-depth review of capabilities and doctrine, he concludes that it is decades away from becoming a peer competitor of the United States but nonetheless warrants US vigilance. The final Asia article is by Colonel Thomas A. Drohan, Commander and Professor of the 34<sup>th</sup> Education Group (the parent organization of *Airman-Scholar*) and critically examines the US-Japan defense relationship. Using the bilateral dynamic observed during the 1991 Gulf War and the 1994 North Korea nuclear crisis, Colonel Drohan concludes that the alliance has operational and political difficulties to address and is likely to face significant challenges in the years ahead.

more closely with the "air forces at peace" theme, beginning with two articles on the essential but often overlooked mission of logistics. Lieutenant Colonel Patrick A. Grieco, US Air Force ROTC commander at Kent State University in Ohio, gives us a useful lesson in understanding logistics itself. He is followed by Captain Ronald N. Dains, a faculty member of the 34<sup>th</sup> Education Group at the Academy, who provides a vigorous defense of the logistics arm of the Air Force and argues for its conversion into a functional command at the national level. These are followed by three additional critiques of the controversial "end of air forces" argument made by Dr. Martin van Creveld and published in the Spring 2000 issue of *Airman-Scholar*. W. Alexander Vacca, a PhD candidate at Rutgers University, argues that van Creveld provides a too-optimistic view of the prospects for peace in the world among other problems with his conclusions. Cadet Colin Henderson then points out that van Creveld's reasoning and conclusions, while useful, are too extreme; Cadet Matthew Nussbaum agrees with this assessment but goes on to form unique arguments in favor of Air Force continuity based on bureaucracy and morality.

Continuing an innovation begun with our Spring 2000 issue, we are featuring several works of original art by Academy cadets – this time created with this issue of *Airman-Scholar* in mind. Our thanks again to Dr. Pam Chadick of the Department of English and Fine Arts for her assistance. Please read our plans for the Spring 2001 issue later in this volume and consider submitting an article for publication. CK



# The ASEAN Regional Forum and US National Security Policy

William E. Berry, Jr

This article examines attempts made to foster regional integration in Southeast Asia since the early 1960s. A particular focus is the formation of the Association of Southeast Asian Nations in 1967 and the more recent evolution of the ASEAN Regional Forum to address security interests. The United States has not enthusiastically embraced regional security organizations because of fears that they could adversely affect the more established bilateral ties it has with several countries in both Southeast and Northeast Asia. The conclusion reached here is that such a policy is ill conceived, and it is in the national security interests of the United States to be an active participant in multilateral approaches to the resolution of contentious issues in this increasingly important region.

## Regional Integration in Southeast Asia

The initial efforts to form a regional association among Southeast Asian countries ran into difficulties in the early 1960s in part because of territorial issues and competition among the political elite. In July 1961, Malaysia, Thailand, and the Philippines joined together to form the Association of Southeast Asia (ASA). Some of this organization's goals included political cooperation and the development of economic and cultural ties among its members. However, ASA developed problems almost from the beginning primarily because of conflicting claims over Sabah between Malaysia and the Philippines. When these two countries suspended diplomatic relations in 1963, ASA became inactive until Malaysia and the Philippines reestablished relations in 1966.<sup>1</sup>

In August 1963, Philippine President Diosdado Macapagal proposed the formation of Maphilindo, which, as the name suggests, included Ma-

President Sukarno of Indonesia announced his Konfrontasi policy and actually began military operations against Malaysia later in 1963 because of his objections to Malaysia's incorporation of Sabah and Sarawak into the Malaysian Federation, Maphilindo collapsed.<sup>2</sup> By 1966, President Suharto had replaced Sukarno as Indonesia's leader and ended the Konfrontasi policy. With the resumption of diplomatic relations between the Philippines and Malaysia that same year, there were once again opportunities to expand ASA to include more countries in the region.<sup>3</sup>

The foreign ministers of Thailand, the Philippines, Indonesia, Malaysia, and Singapore met in Bangkok during August 1967. As a result of their discussions, the Association of Southeast Asian Nations (ASEAN) came into existence. The ASEAN Declaration, signed on 8 August 1967, provided that the member countries would cooperate to promote the "economic and social stability of the region" and work toward ensuring "the stability and security" of the member countries from external interference. It also stipulated that all foreign military bases in the member countries were only temporary and were not to be used "to subvert the national independence and freedom" of any of the countries in the region. Although not mentioned specifically, this provision clearly was directed at the US bases in the Philippines, particularly Clark Air Base and Subic Bay Naval Base. This document went on to establish two major goals for ASEAN. One of these was to promote "economic growth, social progress, and cultural development" in the region. The other goal was to foster "regional peace and stability through abiding respect for justice and the rule of law."<sup>4</sup> The ASEAN Declaration further stated that the ultimate goal of the organization was to expand ASEAN membership

time, this goal was achieved. Brunei joined in 1984; Vietnam in 1995; Laos and Myanmar (Burma) in 1997; and, Cambodia became the tenth member in 1999.<sup>5</sup>

Although the founding fathers of ASEAN understood the close relationship between economic growth and regional security, during most of the Cold War period ASEAN concentrated the majority of its attention on the former. There were many regional security problems, but the countries involved preferred to address these problems bilaterally rather than through ASEAN mechanisms. It is possible to identify at least two reasons for this preference. First, the member countries did not want to be compared in any way to the Southeast Asia Treaty Organization (SEATO), which was a US sponsored, anti-communist regional security organization in existence between 1954 and 1977. Second, there was no common external threat perception within ASEAN which would have contributed to a more effective regional security organization.<sup>6</sup> However, some consensus did develop that ASEAN should attempt to limit the influence that the superpowers exercised in Southeast Asia because of the perceived negative consequences of the resulting competition between and among the United States, Soviet Union, and China. One effort to reduce this competition was the establishment of the Zone of Peace, Freedom, and Neutrality (ZOPFAN) in November 1971. The ZOPFAN Declaration stated that the neutralization of Southeast Asia was a “desirable objective” and pledged to bring this concept to fruition. This document concluded by promising to exert the necessary efforts to create a region “free from any form or manner of influence by outside powers.”<sup>7</sup> Although this goal was not practical from a power politics perspective, it did provide an example of the region’s concerns about being drawn into a superpower confrontation not of its own making.

In 1976, the ASEAN countries made another effort to address security concerns in part because of the unification of Indochina under communist governments the previous year. At a meeting of the heads of government in Indonesia, they drafted the Treaty of Amity and Cooperation in Southeast Asia (TAC).<sup>8</sup> This treaty stated that the high contracting parties were intent on the

promotion of “regional peace and stability through abiding respect for justice and the rule of law.” The leaders pledged not to interfere in the internal affairs of other countries nor to participate in any activities which would constitute a threat to the territorial integrity of the ASEAN countries. Finally, they stated that when disputes arose, they would “refrain from the threat or use of force and shall at all times settle such disputes among themselves through friendly negotiations.” Since adherence to the TAC became a prerequisite for any future membership in ASEAN, the heads of government were attempting to set certain standards that countries such as Vietnam, Laos, and Cambodia would have to meet if they decided to join the organization.

### **Movement Toward a Regional Security Organization**

Despite the efforts of ZOPFAN to limit great power competition in Southeast Asia and the TAC to provide for the resolution of disputes within ASEAN, there remained differences as to the correct course of action to pursue as the Cold War concluded. With the decline and then collapse of the Soviet Union, countries such as Thailand and Singapore became more concerned that perhaps the United States would decide to withdraw its military presence from the region as its major rival ceased to exist. Other countries including Malaysia and Indonesia were more reluctant to make changes to the basic ZOPFAN concept.

However, there was a general consensus that the end of the Cold War could bring unexpected problems, particularly if a security vacuum developed as the two superpowers withdrew. Based on this concern, ASEAN began a gradual shift from trying to exclude the United States from the region to one of finding ways to keep the US military presence in place. The fundamental dilemma was that despite the legitimate worry about great power involvement in the region, that involvement represented the status quo which by the late 1980s and early 1990s had contributed to unprecedented economic growth and development in Southeast Asia. In the minds of several regional leaders, an American withdrawal could lead to a less secure environment that might threaten this prosperity.

Events affecting the bilateral security relationship between the United States and the Philippines exacerbated these concerns. By late 1990, the two countries had reached a partial impasse in their efforts to negotiate an extension to the 1947 Military Bases Agreement (MBA) that granted the US the legal authority to retain its bases in the Philippines.<sup>10</sup> US negotiators were dissatisfied with the monetary demands their Philippine counterparts were making, but the Filipinos confronted a dilemma: nationalists demanded the termination of the bases, but the communities surrounding the military facilities were partially dependent on the economic benefits which the bases provided. Furthermore, the Philippines remained reliant on the American presence for its own security since its military forces were poorly equipped and trained. In June 1991, nature intervened when Mt. Pinatubo, an inert volcano for hundreds of years, erupted and literally destroyed Clark Air Base. By November, the United States re-



C-130 departs Elmendorf AFB for Dili, East Timor, during Operation Stabilize, 1999-2000. (USAF photo by Master Sgt. Val Gempis)

turned Clark to Philippine control.

Despite the natural disaster affecting Clark Air Base, negotiators from the two countries reached an agreement in July 1991 to extend the MBA for 10 years to cover Subic Bay Naval Base. However, when the Philippine Senate considered the proposed treaty for ratification in September, 12 of the 23 senators voted against this extension which in effect signaled the end of the American presence at Subic. Almost exactly one year later, on 1 October 1992, the US Navy withdrew the last of its forces from the naval base – thus ending the American permanent military presence in the Philippines which had been in place since 1902, with the exception of the Japanese occupation during World War II.<sup>11</sup>

Concerned by the problems it encountered during the negotiations with the Philippines, the

United States began discussions with Singapore in late 1990 for the purpose of increasing the access of its air and naval forces to facilities there. In November 1990, the two sides signed a memorandum of agreement which allows the United States to maintain a modest military presence in Singapore—fewer than 200 people on a permanent basis. These forces provide logistical and maintenance support for the Seventh Fleet and plan for training exercises of USAF units, mainly those from bases in Alaska, Japan, and Korea, but temporarily assigned in Singapore for the duration of the particular exercise.<sup>14</sup>

ASEAN took notice of what was occurring between the United States and the Philippines. The

member countries met in Manila during June 1991, and the Philippine Foreign Minister raised the issue of the need for other countries to take on more of “the burden” for the American military presence in the region. Later that year, another meeting took place in Bangkok during which it was agreed that ASEAN needed to more formally address multilateral approaches to regional security.<sup>15</sup>

Meeting in Singapore during January 1992, the ASEAN heads of government decided that their organization should

expand its “external dialogues on political and security matters by using the ASEAN Post Ministerial Conference (PMC)” for this purpose.<sup>16</sup> The PMC is comprised of the ASEAN foreign ministers and their counterparts from those countries that are ASEAN dialogue partners. The United States is one of these dialogue partners as are Japan, China, South Korea, Russia, India, and a few other countries. The PMC meeting follows the annual ASEAN Ministerial Meeting (AMM) that involves only the ASEAN foreign ministers.

The 1993 AMM also was held in Singapore during July, and the foreign ministers agreed to “find ways to promote consultations on regional political and security issues.” They proposed that these issues be discussed at the PMC meeting scheduled for Bangkok the following week, and, for the first time, referred to a new organization



to be known as the ASEAN Regional Forum (ARF).<sup>17</sup> The PMC endorsed this AMM proposal and determined the membership of the ASEAN Regional Forum should include the six ASEAN countries and their dialogue partners which at that time included the United States, Japan, Canada, South Korea, Australia, New Zealand, the European Union, Russia, China, Vietnam, Laos, and Papua New Guinea.<sup>18</sup> The foreign minister decided that the first meeting of the ASEAN Regional Forum would be held in Bangkok in the summer of 1994.

At essentially the same time that the ASEAN leaders were concerned about the impending withdrawal of the American bases from the Philippines, other events occurred which further convinced these leaders that some sort of security organization was needed. The Spratly Islands in the South China Sea are arguably the most dangerous area in Southeast Asia and pose a potentially serious threat to regional peace. China, Taiwan, Vietnam, Malaysia, the Philippines, and Brunei have conflicting territorial claims in the Spratlys. Potential oil and natural gas deposits, rich fishing grounds, and their strategic geographical location astride some of the most important sea lanes of communication contribute to the value of these small islands and atolls. In addition, as several countries have established expanded economic zones in recent years as a result of the United Nations Convention on the Law of the Seas, several of these zones overlap which increase the tensions. As an example, in 1988, China and Vietnam fought several naval engagements in the Spratlys as each attempted to substantiate its claims through military force.<sup>19</sup>

In February 1992, the Chinese National People's Congress passed legislation entitled the Law on Territorial Waters and Their Contiguous Areas. This legislation declared that all of the Spratlys are part of China's territorial sea and authorized the use of force to settle conflicting claims.<sup>20</sup> In July of the same year at the AMM, the foreign ministers drafted the ASEAN Declaration on the South China Sea. This document was rather mild in its tone, but it did urge restraint and called upon all of the countries with conflicting claims "to apply the principles in the Treaty of Amity and Cooperation in Southeast Asia as the basis for establishing a code of international conduct

over the South China Sea."<sup>21</sup> Although the foreign ministers did not mention China by name, it was clear they were concerned over the Chinese legislation and the stated threat to use force.

These concerns increased dramatically in 1995 and 1996 when China directly challenged the Philippines on and near Mischief Reef in the Spratlys which both countries claimed. The Chinese began construction of what appeared to be a guard post, and Chinese soldiers were observed on this platform. Since Mischief Reef is only 135 miles from the Philippine island of Palawan, Philippine authorities expressed their displeasure and called upon China to withdraw.<sup>22</sup> If China were looking for a test case to determine what response to expect from other claimants, Mischief Reef probably was a good choice because the Philippine military was so weak. Since the US withdrawal from its bases earlier in the decade, the Philippines did not have the military strength to defend its territorial claims. It may be that China saw this challenge to the Philippines as a means to probe what the ASEAN and American responses would be. This represented the first direct Chinese territorial challenge to an ASEAN member in the Spratlys.<sup>23</sup>

### **The ASEAN Regional Forum and the American Response**

At the second meeting of the ARF in 1995, the foreign ministers from all 18 of the member countries at that time drafted "The ASEAN Regional Forum: A Concept Paper."<sup>24</sup> This is an important document because it established many of the basic ARF principles which still pertain. Perhaps most important, this paper established that ASEAN would play the dominant role as the "primary driving force" in the Forum. In practical terms, this meant that ASEAN would set the agenda for the annual ARF meetings. The Concept Paper identified three challenges that the ARF needed to confront. First, the periods of rapid economic growth that characterized most of the ASEAN countries and others in Asia could lead to significant shifts in power relationships and might contribute to conflict. The ARF needed to be cognizant of these shifts and to manage them. Second, it pointed out the political, economic, and military diversity within the region and warned that there are dif-



ferent approaches to conflict resolution. The ARF should recognize these differences and work hard to find a consensus to resolving security issues. Third, there remained territorial disputes which the ARF must attempt to diffuse so that the peace is not undermined.

The Concept Paper proposed a three-stage approach to dealing with these challenges:

Stage I: Promotion of Confidence-Building Measures.

Stage II: Development of Preventive Diplomacy Mechanisms.

Stage III: Development of Conflict-Resolution Mechanisms.

Most of the attention in this document focused on the first stage. The Concept Paper reinforced the ASEAN decision-making practice of consultation and consensus and referred specifically to the ZOPFAN agreement and the TAC as fundamental documents to be used in attempting to address the problems the ARF would confront. It also made the distinction between Track One activities which are carried out between governments and Track Two functions that are conducted by non-governmental organizations and regional educational/research institutions. This document foresaw that Track Two organizations could be particularly effective in recommending procedures to transit from Stage I to Stage II.

In the concluding section of the Concept Paper, the drafters made it clear that they did not want the ARF to turn into a highly bureaucratic organization. There was to be no secretariat for example, and ASEAN would be the primary repository for all the Forum's documents. To reassure members, it stressed that the ARF would "progress at a pace comfortable to all participants," and not go "too fast for those who want to go slow and not too slow for those who want to go fast." Finally, the Concept Paper referred to the ASEAN Regional Forum as a *sui generis* organization which was an interesting way to make a clear distinction between itself and any predecessor, particularly the Southeast Asia Treaty Organization.

The official US response to the ARF has

been somewhat inconsistent. Early on in the initial discussions involving the formation of a regional security organization, some officials tended to view such an organization as counter-productive to the American bilateral security ties which had been established over the years of the Cold War. According to this perspective, the United States should not support any initiative that would detract from the effectiveness of its bilateral and multilateral security arrangements. Richard Solomon, Assistant Secretary of State for East Asian and the Pacific during the Bush administration, made this point in a 1990 speech.<sup>25</sup> In this speech, Solomon drew a clear distinction between the European and Asian security environments, in particular the differences in threat perceptions. He argued that in Europe, there was a common threat perception among NATO members associated with the Soviet Union and its Warsaw Pact allies. However, in East Asia, there was no NATO equivalent, and the individual countries in the region had reached no consensus on the nature of the threat(s). In his view, the existing security mechanisms, that is the American alliance structures, should be modified if necessary, but they remained the bulwark of regional security.

Toward the end of the Bush administration, Secretary of State James Baker presented a slightly more accommodating position toward multilateral approaches to regional security in a *Foreign Affairs* article.<sup>26</sup> Secretary Baker used a spoke and fan analogy in this article whereas the base of the fan was centered on the United States with the spokes of the fan extending into East Asia. The strongest of these spokes was the US-Japan security treaty while the alliances with Korea, the Philippines, Thailand, and Australia represented the other spokes. Baker did acknowledge, however, that certain multilateral security arrangements could strengthen these bilateral relationships, although he focused much of his attention on Northeast Asia and the Korean peninsula rather than Southeast Asia.

When the new administration came into office in early 1993, President Clinton and his Secretary of State Warren Christopher continued to develop the Baker thesis. At his first ASEAN PMC meeting in Singapore during late July 1993, Christopher indicated that the United States

would “participate actively in regional security dialogues in Asia.” However, he went on to caution that such participation would “in no way supplant America’s alliances or forward military presence” in the region. His vision was that multilateral initiatives would only supplement the established US security arrangements rather than replace them.<sup>27</sup> Christopher presented an even stronger endorsement of the ASEAN Regional Forum at the 1996 ASEAN PMC. He reiterated the complementary nature of the bilateral and multilateral security approaches, and he referred specifically to the ARF’s value in addressing conflicting claims in the South China Sea as well as supporting nonproliferation initiatives. Finally, he stated that American support for the ARF process would help facilitate progress in moving from confidence building to mechanisms for preventive diplomacy.<sup>28</sup>

The Clinton administration continued to be concerned about American credibility in East Asia in large part because of the withdrawal of the American bases from the Philippines and the end of the Cold War. In 1995, the Department of Defense published a pamphlet entitled “United States Security Strategy for the East Asia-Pacific Region.” In addition to pledging that the United States would continue its alliance structure and forward deployed military presence of approximately 100,000 personnel, this document also voiced support for the ARF as an “inclusive group not directed at any one country” and one that would serve as a “forum for consultation on security issues in the Asia-Pacific region.” In 1998, the Pentagon updated this publication and made other specific references to the ARF, particularly the value of both the Track I and Track II approaches to regional security.<sup>30</sup>

Despite the assurances provided by former Secretary of State Christopher and the positive evaluations in Department of Defense publications, there remain reservations as to the effectiveness of the ASEAN Regional Forum, particularly in the Pentagon. These reservations are based on both form and substance considerations. Regarding the former, the ARF decision-making process is based on the ASEAN concepts of consultation and consensus. This process is frequently time consuming and may not result in a definitive outcome, particularly on the more con-

tentious issues such as conflicting claims in the South China Sea. Another reservation in the Pentagon involves the dominance of foreign ministers in the ARF process. Since the ARF annual meetings follow the ASEAN Ministerial Meetings, the major players are the foreign ministers and their staffs who set the agendas for these meetings. One Southeast Asia security expert has referred to the ARF as “a club of foreign ministers,” however, since the second ARF meeting in 1995, military representatives have also participated in the annual sessions.<sup>31</sup> Other critics point to the fact that the first ARF meeting in 1994 did not even have an agenda and lasted for only an hour. They are dissatisfied that there has been little progress in moving beyond the confidence building phase to preventive diplomacy, and that no movement to conflict resolution has occurred. In many ways, these objections are typical American impatience with processes which these officials are unable to control, but they do influence the overall impression of many in the Department of Defense and elsewhere concerning the value of the ARF.<sup>32</sup>

However, it is imperative that the United States continues its involvement with and participation in the ARF. There are several reasons for this argument. First, if the United States wants to remain credible in the region, it must do more than just keep forward deployed forces in place. The ASEAN Regional Forum is an important organization, and the United States is one of the original members. To withdraw or reduce its involvement would be counterproductive to the goal of remaining engaged and not in the best American interest. Second, having ASEAN play the leading role in the ARF is valuable because it deflects the argument that the ARF is nothing more than another SEATO dominated by the United States. ASEAN involvement makes it easier for countries such as China to play an active ARF role. Third, there has been a significant change in the way that China views the ARF. Initially, the Chinese were concerned that the ARF members would gang up on China over the South China Sea disputes for example. However, this has not happened, and China has actually become more accommodating at least in that it is now willing to discuss these problems multilaterally rather than just bilaterally.<sup>33</sup> Perhaps the

most significant example of this change in its approach to the ARF is the Chinese decision to submit a paper for inclusion in the first ARF “Annual Security Outlook” which was published in 2000. While this first Chinese paper is somewhat vague on specific issues, the more important point is that the decision was made to submit one at all. Historically, China has been reluctant to provide this type of information.<sup>34</sup> Finally, the ARF provides a useful forum to raise issues involving countries with which the United States may have infrequent contact. When North Korea joined the ARF at the July 2000 meeting, this forum has taken on increased significance to support the development of this evolving bilateral relationship.

Despite some of the frustrations involved, continued American participation will allow the United States to shape future ARF agendas, or at least to participate in that process, and to influence the increasingly important Track II activities. In the final analysis, there is currently no alternative to the ARF as a regional security organization, and American national security interests are served by the continuation of an active US role.

<sup>1</sup> Estrella D. Solidum, *Towards a Southeast Asian Community* (Quezon City, Philippines: University of the Philippines Press, 1974), 28.

<sup>2</sup> John F. Cady, *The History of Post-War Southeast Asia: Independence Problems* (Athens, Ohio: Ohio University Press, 1974), 122-123.

<sup>3</sup> Solidum, op. cit., 29.

<sup>4</sup> “The ASEAN Declaration,” 8 August 1967, 1. This document can be found on the ASEAN website at <http://www.aseansec.org>.

<sup>5</sup> “History and Evolution of ASEAN,” <http://www.aseansec.org>.

<sup>6</sup> Amitav Acharya, “A New Regional Order in Southeast Asia: ASEAN in the Post Cold War Era,” *Adelphi Paper* 279 (London: The International Institute for Security Studies, August 1993), 53.

<sup>7</sup> “Zone of Peace, Freedom, and Neutrality Declaration,” 27 November 1971. See <http://www.aseansec.org>.

<sup>8</sup> “Treaty of Amity and Cooperation,” 24 February 1976, 1-6, found in <http://www.aseansec.org>.

<sup>9</sup> Achaya, op. cit., 56-57.

<sup>10</sup> The original MBA went into effect in 1947 with a 99-year expiration date. In 1966, Secretary of State Rusk and Foreign Minister Romulo negotiated an agreement which reduced this period to 25 years from that time. As a result of the Rusk-Romulo Agreement, the MBA was scheduled to expire in 1991. For an extensive history of the negotiations leading to the MBA, see William E. Berry, Jr., *U.S. Bases in the Philippines: The Evolution of the Special Relationship* (Boulder: Westview Press, 1989), 1-69.

<sup>11</sup> *Far Eastern Economic Review* (hereafter *FEER*), 27 June 1991, 13-14 and the *International Herald Tribune*, (hereafter *IHT*), 14 June 1991, 2, 16 July 1991, 1, 10 September 1991, 1, and 27 November 1991, 1.

<sup>12</sup> *New York Times* (hereafter *NYT*), 17 September 1991, 4.

<sup>13</sup> *IHT*, 10 October 1992, 3.

<sup>14</sup> *FEER*, 22 November 1990, 10-11.

<sup>15</sup> Achaya, op. cit., 59.

<sup>16</sup> “The Singapore Declaration,” 28 January 1992, 1 found in <http://www.aseansec.org>.

<sup>17</sup> “Joint Communiqué of the Twenty-Sixth ASEAN Ministerial Meeting” in Singapore, 1 found in <http://www.aseansec.org>.

<sup>18</sup> For more on the formation of the ARF, see Desmond Ball and Pauline Kerr, *Preventive Engagement: Australia's Asia-Pacific Security Policy in the 1990s* (St. Leonard, Australia: Allen and Unwin Australian Press, 1996), 24-25 and Michael Liefer, “The ASEAN Regional Forum,” *Adelphi Paper* 302 (London: The International Institute for Security Studies, August 1996), 7-8.

<sup>19</sup> Mark J. Vallencia, “China and the South China Sea Dispute,” *Adelphi Paper* 298 (London: The International Institute for Security Studies), November 1995, 8-24.

<sup>20</sup> Ibid., 14 and Sheldon Simon, “Regional Issues in Southeast Asian Security: Scenarios and Regimes,” *Analysis*, The National Bureau of Asian Research, Vol 4, No 2, July 1993, 12-13.

<sup>21</sup> “ASEAN Declaration on the South China Sea,” 22 July 1992, 1 in <http://www.aseansec.org>.

<sup>22</sup> *NYT*, 19 February 1995, 8 and *FEER*, 13 April 1995, 24-28 and 3 August 1995, 22-23.

<sup>23</sup> Vallencia, op. cit., 21.

<sup>24</sup> “The ASEAN Regional Forum: A Concept Paper” is included in the “Chairman’s Statement of the Second ASEAN Regional Forum,” 1 August 1995, 1-4 in <http://www.aseansec.org>.

<sup>25</sup> Richard Solomon’s speech can be found in *U.S. Department of State Dispatch*, 5 November 1990, 243-249. The specific references to multilateral security ties are on pp. 244-245.

<sup>26</sup> James A. Baker III, “America in Asia: Emerging Architecture for a Pacific Community,” *Foreign Affairs*, Vol 70, No 5, Winter 1991/92, 1-18. See specifically pp. 4-5 and 13.

<sup>27</sup> Speech by Secretary of State Warren E. Christopher at the ASEAN Post Ministerial Conference in Singapore, 26-28 July 1993. The specific references quoted here are on p. 2. See <http://www.aseansec.org>.

<sup>28</sup> Secretary Warren E. Christopher, ASEAN Post Ministerial Conference in Jakarta, Indonesia, 24-25 July 1996, 3 in <http://www.aseansec.org>.

<sup>29</sup> “United States Security Strategy for the East Asia-Pacific Region,” Office of International Security Affairs, Department of Defense, February 1995. Specific references to the ARF are found on p. 13.

<sup>30</sup> “The United States Security Strategy for the East Asia-Pacific Region,” Office of International Security Affairs, Department of Defense, November 1998. Specific references to the ARF are on pp. 43 and 66.

<sup>31</sup> Leifer, op. cit., 29.

<sup>32</sup> Author’s interview with Lt Colonel Alan G. Young, Bureau of East Asian and Pacific Affairs, Department of State, Washington, DC, 16 July 1996.

<sup>33</sup> Allen S. Whiting, “ASEAN Eyes China,” *Asian Survey*, Vol XXXVII, No 4, April 1997, 300.

<sup>34</sup> “ASEAN Regional Forum Annual Security Outlook 2000,” 1-3, in <http://www.aseansec.org>.

## Biography

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*Peacekeepers* by Peter Donnelly, USAFA '01. Courtesy of the USAF Academy Department of English and Fine Arts.



# The Chinese People's Liberation Army Air Force in Past, Present, and Future

Michael R. Boera

*... the Chinese Air Force and Naval air forces are obsolescent and incapable of mounting any effective large-scale sustained air operations.*

*1997 US Navy Report*

Statements such as the above are the norm in most research material on the Chinese People's Liberation Army Air Force (PLAAF) and many other aspects of Chinese military forces. In Russell Howard's September 1999 study, *The Chinese People's Liberation Army: "Short Arms and Slow Legs,"* he asserted, "China's military technology deficiencies ensure that its armed forces will enter the 21<sup>st</sup> century with armaments just beginning to incorporate technologies from the early 1970s."<sup>1</sup> It is clear, however, the Chinese are aware of these deficiencies and are slowly taking steps to modernize their military machine. This article offers a historical perspective of the PLAAF starting in the late 1940s and ending with possible future developments of their air forces. I will use this historical perspective to address potential military and strategic concerns and implications for the United States and the US Air Force. Particular issues include PLAAF procurement practices versus internal research and development (R&D) in support of an independent aerospace industry, status of the PLAAF within the Chinese People's Liberation Army (PLA), PLAAF pilot education and training, the relationship between the central government and the PLAAF in past years, and the potential for conflict against US forces over Taiwan.

My intent is to concentrate primarily on the basic capabilities of the PLAAF, just one small area of national power for China. I want to understand the Chinese airmen, their heritage, how capable they are, and their future capabilities. Should they be of

concern to me as a future senior USAF leader?

I maintain that although the present and near-future capability of the conventional air forces of the PLA may be able to prevail over lesser forces in Asia, it is decades away from being a major threat to US or Japanese air forces. But Chinese inclinations towards cruise missile technology, information warfare, and space capabilities should concern the United States. The United States should stay the course with the "big stick" of its own aerospace force (to include maintaining a strong US aerospace defense industry), move aggressively forward with an Air Operations Center "reachback" capability, have courses of action (COAs) at the ready should they be needed for contingencies in the South China Sea and Taiwan Strait, prepare for Chinese missile technology, cyber attack, and/or space capability, and maintain an open dialogue of exchange to preclude confrontation. In other words, plan for the worst but work towards the best.

## Importance

Understanding the Chinese and the PLA is of vital importance in light of the Chinese "show of force" in the Taiwan Straits in March 1996 and the February 2000 publication of the Chinese White Paper which *fires with words* by making a very strong statement against the possibility of an independent Taiwan. In 1996, the PLAAF showcased an SA-10 surface-to-air missile firing, Su-27 fighter aircraft in both air superiority and ground attack roles, Il-76 transport aircraft dropping paratroopers, many helicopter sorties and a variety of missile firings.<sup>2</sup> Although many questions remain as to the effectiveness of the PLA's command and control throughout the "exercise," a Taiwan contingency based on assumed US intervention is a major organizing principle of China's military modernization.<sup>3</sup> As such, an attack on the Republic of China (ROC)

by the People's Republic of China (PRC) must be planned against by US military leadership, even though current US policy remains ambiguous (even confusing at times considering the differing policies of our executive and legislative branches of government) as to our reaction should an actual Chinese attack occur. Accordingly, senior US Air Force leadership must understand the capabilities of the PLAAF today and their potential for 'tomorrow.'

The Chinese may be looking beyond conventional air platforms for some "killer weapons" to strike at the US military machine in a limited confrontation. China's initiatives with nuclear forces, space dominance, and information since Desert Storm "shocked" them in 1991 have not been robust. These initiatives in the Revolution in Military Affairs (RMA) school of thought are still not well accepted within the PLA as a whole. Yet we cannot discount the Chinese belief that the wide-spread use of information systems (prevalent in present US doctrine) has greatly increased the possibilities of the systems to be attacked or destroyed, and the scope and level of loss after being attacked-in essence increasing the fragility of the United States and other Western countries.<sup>4</sup> The 1999 Balkan's Air War over Kosovo will force the Chinese to re-evaluate their initiatives at the very least, and continue the upgrade of their air forces. In fact, PLA Chief of General Staff General Fu Quanyu is now looking for several "killer weapons" that can effectively stifle the enemy.<sup>5</sup> With this in mind we begin our study of the Chinese air forces; to do so, we start with a look at the history of the PLAAF.

### **PLAAF Past**

The PLAAF as it is currently known had its origin as the Chinese Communist Air Force (CCAF) in 1946 when Lin Biao, the Commander of the Fourth Field Army, and his men confiscated airplanes and parts left on Japanese airfields in Manchuria following the end of World War II. The Chinese Communists ("Reds") salvaged a dozen or so aircraft. Additionally, Gen Lin ordered captured Japanese pilots to train a few Chinese Reds to fly. This original "air force" was initially desired to transport key army officers.<sup>6</sup>

The PLAAF was formally established in 1949 with Gen Lin Yalon, chief of staff of the Fourth Field Army, as its first commander. By then, it consisted

of 100 combat and transport aircraft at best. Most of these had been captured from Chinese Nationalist forces or the Japanese.<sup>7</sup> Ironically, many of the Nationalist air force assets taken included US C-46 and C-47 transports, P-51 fighters, and B-25 bombers as the Communists pushed the Nationalists to south China.<sup>8</sup>

The initial pilot forces consisted primarily of inexperienced and uneducated ground forces and some Nationalist pilots, who jumped to the Reds. Soviet Union advisors were relied upon heavily and official Soviet military assistance programs began in Moscow with the signing of the Treaty of Friendship, Alliance, and Mutual Assistance in February 1950.<sup>9</sup> During 1950-51, a senior officers' school was set up in Beijing and Nanjing and the Air Force Academy was established in Xi'an. In August 1950 the first jet pilot training began at Shenyang with newly arrived Soviet instructors and aircraft.<sup>10</sup> The training areas for many of the new Red fighter pilots would be the combat skies over North Korea.

Soviet assistance enabled the Chinese to build up their air force rapidly. By autumn of 1951 they were strong enough to engage in what an official USAF historian has described as "strenuous and not entirely ineffectual efforts to wrest air superiority over northwestern Korea away from the United Nations Command." China's air force altered its objectives and utilized the continuation of the war for air combat training purposes in an effort to train a maximum number of pilots and to test equipment, tactics, and organization.<sup>11</sup>

By mid 1952 the PLAAF had aggressively acquired 1,800 aircraft of which 1,000 were jet fighters, primarily Soviet MiG-15 Fagots. Flying from Manchuria, they posed a numerically formidable threat to UN forces.<sup>12</sup> Although the actual MiG-15 aircraft performance was slightly better than that of the US F-86 Sabre, poor Red pilot gunnery skills, poor cockpit design, and deficient instrument and radio equipment gave the Sabre a slight over-all edge.<sup>13</sup> US F-86 pilots destroyed enemy aircraft at an 8 to 1 ratio with 123 MiG-15s shot down over MiG Alley in Korea.<sup>14</sup> Yet, despite their losses, those Red pilots that shot down US fighters were

considered heroes with the Chinese continuing to brag about their “kills” to this day. Unfortunately for the Chinese, a trend towards reliance on foreigners, namely the Soviets, for re-supply of aircraft began that has “handcuffed” the PLAAF over the past 50 years. They did not try to initiate the building of a solid independent defense industry until 1953, and the instability of their internal politics and government has never allowed an aerospace defense industry to flourish. Aircraft losses during the Korean conflict in the early 1950s forced the Chinese to rely on the Soviets for re-supply, and that reliance remains today.

In 1953, the Chinese added the MiG-17 Fresco to their inventory, specifically the MiG-17P, or the J-4, and the MiG-17PF, or J-5. The “P” designation represented *poiskoviy* or search radar, while the additional “F” designation meant *forsazh* or afterburner.<sup>15</sup> By 1956, China’s own production plants were assembling MiG-15 and MiG-17 aircraft.<sup>16</sup> The MiG-15 is designated the J-2 in China. The “J” means *Jianjiji* or fighter aircraft. An “H” is used for its bomber aircraft translated from *Hongzhaji*. *Qiangjiji* or “Q” is used for ground attack aircraft and *Yunshuji* or “Y” for transport aircraft.<sup>17</sup> During conversations on aircraft, the Chinese will use the J or F interchangeably with fighters, and B or H with bombers. Many of these aircraft are still flying after 50 years of service.

The Chinese acquired the Soviet Mi-4 Hound helicopter (designated Z-5; *Zhishengji* for vertical rising aircraft) in 1958 which became and is the core of China’s helicopter transport capability, each capable of carrying up to 14 troops.<sup>18</sup> In the 1960s they acquired Mi-6 Hook and Mi-8 Hip helicopters from the Soviets. They also purchased the French Alouette III in 1967. The Chinese use their helicopters for tactical airlift, transport, and medical evacuation only.<sup>19</sup>

Most Chinese transport aircraft are of Soviet origin as well. Between 1950 and 1960, a series of piston-engine, short-haul and medium-range transport aircraft were delivered to China. The Il-18 Coot was China’s first long-range heavy transport, acquired from the Soviets in the 1960s. They purchased four Pakistan Trident jet transports in 1970 (Lin Biao and his family crashed in one of these while fleeing the country after an aborted coup in 1971), and 10 Boeing 707 aircraft and parts in 1972. There are no pure transport aircraft in the

PLAAF; all are dual-use civil and military aircraft.

In 1952 the Chinese acquired a number of Il-28 Beagle, Tu-2 Bat, and Tu-4 Bull bomber aircraft. By the late 1960s the Chinese produced their own Il-28 (H-5) bomber. The Tu-16 Badger bomber arrived from Russia sometime between 1958 and 1960. The Chinese reverse engineered it by 1964 designating it the H-6. It remains a mainstay of the Chinese bomber force today with a 3,000-mile range, 40,350 ft service ceiling, and 19,800-pound bomb capability.<sup>21</sup> Bombers have always been a secondary priority of the Chinese. They have concentrated on fighter planes and the training of fighter pilots for the defense and protection of China’s cities and coastline. Curiously, tactical aviation was not emphasized either, a bit surprising in light of the heavy influence and character of the ground army within the PLA.<sup>22</sup> The Q-5 Fantan-A ground attack aircraft acquired in 1965-66 is the lone exception.<sup>23</sup>

The MiG-19 (J-6) is the backbone of the Chinese tactical air forces along with the MiG-21 Fishbed (J-7) acquired in the late 1950s and early 1960s. Despite Mao Tse-tung’s politics of the Great Leap Forward (GLF), the aircraft industry was shielded from the excesses of his policies, especially the propaganda campaign condemning reliance on foreign technology and lauding self-reliance. In fact, in 1959-60 two large production complexes in Xi’an and Chengdu produced Tu-16 bombers and MiG-21 fighters. It was not until the Soviet withdrawal of support in the summer of 1960 that China was to realize how much it depended on foreign help to preserve an air force capability.<sup>24</sup>

During 1961-64, the air force drastically declined in operational strength because of a fuel shortage, a drop in pilot training sorties and increased reliance on cannibalization for supplies. At the time, the PLAAF also had the worst morale and discipline problems in the PLA. It was hit hard by the loss of Soviet aid and economic dislocation of the GLF. As early as 1959, the government’s mistrust of the PLAAF pilots dictated a policy that did not allow the air force to fly over water without special permission. Nevertheless, there was a spate of defection flights to Taiwan in 1960-63. Because of this, the entire PLAAF underwent strict screening for loyalty and class background. Despite a shortage of pilots, a large number were grounded or dismissed outright.<sup>25</sup>



China still had some 30 new MiG-21 day fighters from the USSR.<sup>26</sup> With those, and “with Lin Biao as minister of national defense and functioning as the operational chief of the party’s Military Commission, the PLAAF entered and then began to recover from the period of deprivation that marked the early 1960s as a result of the GLF and the withdrawal of Soviet military assistance programs.”<sup>27</sup> Yet politics and coups continued to drive defense budgets up and down to the detriment of the PLAAF. The Vietnam crisis in 1965 forced the Chinese aircraft industry production to spin up again. The Chinese trained the Democratic Republic of Vietnam (DRV) pilots and supplied MiG-15 and MiG-17 aircraft. They also constructed an air defense network on the Vietnam border.<sup>28</sup> Despite this air defense network, between 1964 and 1970, the PLAAF posted a relatively poor record against American aircraft, considering the hundreds of intrusions that went undetected, or at least unchallenged, during the period. [The same is true of incursions by India, the USSR and Taiwan throughout the 1950s and 1960s.]<sup>29</sup> Their air defense network remains suspect to this day.

The closest the PLAAF came to any kind of “formal” involvement in combat against the Americans in Vietnam were “bluffs” in 1967 with aircraft landing and rotating in and out of North Vietnam. They avoided “fighting” once American raids began.<sup>30</sup> Additionally, the PLAAF deployed hundreds of aircraft to southern China during the 1979 border war with Vietnam, but none of its aircraft engaged in combat. This was the last time the air force was involved in any large-scale military operation.

From 1973-79 there was much turmoil again within the PLAAF as China decided against modernization of its air forces since the US was out of Indochina and Russia threatened with missiles.<sup>31</sup> In fact, the bulk of inventory and capability of the PLAAF of the 1950s and 1960s remains with them today as they enter the 21<sup>st</sup> century. US officials in China call the inventory of the PLAAF “the world’s largest flying museum!”

## PLAAF Present

“It is indicative of the extreme ground-force orientation of the PLA that, officially, the air force is just another of the eight service arms. Actually, the PLAAF enjoys a special status. It has a distinc-

tive uniform (the PLA green jacket and cap with blue trousers), a separate personnel system, and a chain of command which is highly centralized and separate from that of the ground forces.”<sup>32</sup> Today, it also enjoys a majority of the PLA budget because of the emphasis given it as a response mechanism over the Taiwan issue of independence.

The PLAAF is organized into Air Force Districts (AFDs), which now match up with seven Military Regions (MRs). Lack of army and air force coordination is reflected in the slow pace of organizational change. It was not until 1985 that the air force’s military region boundaries completely coincided with the army’s military region boundaries.<sup>33</sup> It is interesting to note though that the air force *is* tied to the army versus being strategically organized. The MRs can be characterized as the “haves” and “have-nots” with emphasis given to the combat strength along their southern coastline and northeast border. The Chinese use a rapid-reaction strategy and the PLAAF has embraced the concept of deploying according to the principles of *qian qing hou zhong* (“light front, heavy rear”) and deploying in three rings which, in my opinion, is very similar to our air “defense in depth” concepts.<sup>34</sup> This concept also follows with two mainstays of ancient China war-fighting doctrine: “trading space for time” and “defeating a superior enemy with an inferior force.”<sup>35</sup>

The AFDs are comprised of one or more administrative Air Armies (*fei-xing jun*) that consist of the largest tactical air units or Air Divisions (*fei-xing shi*). There are two or three Air Regiments (*fei-xing tuan*) within the Air Divisions, three or four Air Wings (*fei-xing ta-dui*) within the Regiments, and three or four Air Squadrons (*fei-xing zhong dui*) within the Wings, each with 9-12 aircraft.<sup>36</sup>

Although enjoying a “special” status within the PLA, the PLAAF has always been the technologically weakest leg of the PLA force structure. As mentioned earlier, their inventory is still primarily of 1950s-60s Soviet vintage. Their 2,500 fighter-interceptors are antiquated and no match versus the F-15s, F-16s, Su-27s and Mirage 2000s of other countries in the region.<sup>37</sup> In a move towards increasing force projection capability, the PLAAF has acquired the assets for an extremely limited in-flight refueling capability. Research indicates in 1992, it transformed the Yun-8 transport aircraft into a refueling tanker and equipped at least four

aircraft with air refueling kits using technology acquired from Israel, Iran, and Pakistan.<sup>38</sup> Yet in conversations with PLAAF officials they mention only one B-6 bomber that has been converted to a tanker with three more to follow in the future. The B-6 has been seen with drogue fuel lines out in Chinese military shows. The Chinese consider in-flight refueling as high-tech in nature, a capability the United States has enjoyed for half a century!

Also of importance, in 1992 China took delivery of 26 Sukhoi-27 Flanker (J-11) fighter-bombers with an added agreement for 50-75 more. The country also plans to co-produce 15-20 planes per year with Russia, but contract arrangements have yet to be concluded for this and, as of February 2000, the Chinese have a total of only 48 Flankers.<sup>39</sup> The Flanker sold to China possesses hardware for look down/shoot down capability, over-the-horizon advance Doppler radar (149-mile detection range), laser rangefinder, advanced fire control and autopilot function which permits ground control or airborne remote guidance. They are also in-flight refuelable and are capable of carrying the AA-11 Archer (short-range infrared) and AA-10 Alamo (long-range radar) air-to-air missiles.<sup>40</sup> However, the integration of the Su-27 into the Chinese air force has proven difficult, particularly with respect to training and maintenance costs. Three of the initial airframes have crashed, five were seriously damaged in a typhoon and all but a couple of the airframes have proved unsatisfactory which has slowed the procurement process.<sup>41</sup> Those delivered do not possess all of the software needed to complement fully the hardware capability of the Su-27 (Russia will not give China a capability to strike into Russia).

In addition, PLAAF pilots are ill equipped to handle the few Su-27s that are airworthy (Russian pilots had to deliver the initial purchase of aircraft). The Chinese pilots lack all weather, night navigation and over-water operational skills to take full advantage of the Su-27. Some estimates of pilot training have Chinese pilots receiving as little as 30 hours of training per year in this aircraft versus the 200-225 hours per year USAF fighter pilots receive.<sup>42</sup>

In the 1950s, large numbers of pilots were recruited from among the worker-peasant class, many of whom had only received primary education. In the 1960s

and 70s, middle school students were enrolled, and from 1979 onwards, the aviation schools have enrolled only senior high school students. Since 1983, university graduates have been enrolled for training, and these students, the first batch graduated in 1985, are the first pilots in the history of the [PLA] Air Force who have degrees.<sup>43</sup>

According to Chinese PLAAF officers in Beijing and at the 24<sup>th</sup> Air Division at Yangcun AFB, Chinese bomber pilots are lucky if they receive 80 hours of training per year; fighter pilots 100-110 hours (about 2-3 sorties per week, 40-50 minutes in duration); and ground attack, 150 hours.<sup>44</sup> Moreover, most fighter training sorties are dedicated to simple navigation as opposed to tactical maneuvers. In addition there is a lack of combat experience and what little tactical air-to-air flying they do is strictly ground-controlled and lacks individual pilot initiative. They rarely fly close formation hence many may have extreme difficulty with air refueling in weather, even with the platforms to do so. Although they *plan* to fly 30% of their time at night, they rarely do, and can accomplish very little tactically at night when they do. This will continue to restrict the air force's capabilities, especially against American or Western-trained air forces.<sup>45</sup>

The PLAAF bomber force remains outdated and it does not appear that the PLA plans to replace its aging fleet anytime soon, although what remains does have a nuclear capability. They have retired their Il-28 aircraft and both the PLAAF and the PLA Naval Air Force (PLANAF) are left with the 1955 vintage Tu-16 Badger as their only dedicated long-range bomber. Weapons, avionics, and radar upgrades to the Tu-16 have extended its utility, but it is still not capable of deep-strike missions requiring penetration of sophisticated anti-aircraft systems. They have assigned the deep land-target strike mission to their missile forces.<sup>46</sup> The PLANAF does have a few FB-7 fighter-bombers to complement their fleet. These same planes were rejected by the PLAAF.

Before 1991, Chinese doctrine called for a "local limited war." The Chinese Navy and Air Force had to adapt to a new defensive perimeter that extended 600 miles from China's shore. Desert Storm forced Beijing to change its military strategy to a doctrine

of “limited local war under high-tech conditions.”<sup>47</sup> Such a doctrine is more assertive, stressing offensive, even preemptive, uses of military power, but “the PLA does not now have, nor has it ever had, the wherewithal to carry out the doctrine’s intent. China’s deficiencies in systems integration, manufacturing propulsion systems, and advanced computer technologies will be the most limiting factors in the PLA’s ability to field the weapons and equipment necessary to satisfy strategic requirements.”<sup>48</sup>

Yet the “more offensive operational doctrine has signaled [China’s] intention to assume the status of a world power. While every major power’s defense budget and military personnel levels have declined substantially since the Berlin Wall came down, the Chinese budget has increased on average approximately 11% per year.”<sup>49</sup> In fact, the Chinese just announced a 12% increase for this next year. The PLA has the Taiwan issue fueling their “push” in doctrinal change and modernization. This gives it one central problem to concentrate on and focus its efforts. “It appears that doctrinal and equipment improvements are progressing very modestly. In 1993 one noted China watcher felt that by 2000 China could be building [Soviet-designed] MiG-31 fighters and have a significant fleet

of fighter planes and bombers that can be refueled. In both cases the Chinese have come up short, indicating the complexity of revamping their military establishments.”<sup>50</sup> China’s air power has not developed to the level it can project the force required for execution of “local war under high-technology” doctrine.<sup>51</sup>

At present, it is unclear whether China’s military and defense industry has the ability to maintain the advanced equipment it is importing. “China has no experience at building power plants for modern aircraft [and] they must purchase sophisticated engines from foreign suppliers, which leaves them vulnerable to the vicissitudes of international politics and business.” If the Russians were to withdraw their military assistance again, the Chinese would not be much better off than they were in 1960 when the Soviets first withdrew. China is

simply too dependent on foreign military purchases and intelligence gathering to establish a solid aerospace industry foundation that wishes to be on par with that in the United States.<sup>53</sup> Statistics for 1994 indicate 81% of Chinese military producing plants were losing money and perhaps no more than 10% of the defense manufacturing plants are actually used for military production with the remainder either idle or devoted to producing goods or services for the civilian market. “Despite reforms initiated in the early 1980s the Chinese military-industrial complex (CMIC) remains the huge, lumbering, obsolete behemoth built with Soviet assistance in the 1950s.”<sup>54</sup> The Xi’an Aircraft Corporation is a case in point of the sad status of state-run companies. Production is well below capacity, there is little automation throughout, safety standards are nonexistent, no new technologies are being explored, and little work is accomplished during their 8-hour

shift, 5-day workweek. There is no challenge in aircraft production from the civil sector and the state-run military aircraft line has decreased steadily over the past years.

Although the sheer numbers of China’s approximately 3,000 combat aircraft make it intimidating, the maintenance standards and operational readiness



PLAAF J-11 Flanker fighter (Federation of American Scientists at [www.fas.org/nuke/guide/china/agency/plaaf.htm](http://www.fas.org/nuke/guide/china/agency/plaaf.htm))

of the PLAAF’s first-and second-line bases along the southern coast are historically much higher than inland bases: 75-85% versus 55%. It is also important to understand the Chinese use an “availability” rate versus the operational rate used by USAF personnel. If an aircraft is “available” in the PLAAF, it means the aircraft can be ready in 24 hours.<sup>55</sup> I would be very wary of equating “availability” to “operational readiness” of their air forces. At the 24<sup>th</sup> Air Division, where they fly J-7 and J-8 fighters, approximately 8% of the aircraft are available to fly on any one day. They claim their aircraft fly approximately 14 sorties per month. Additionally, because of a poor logistical support system many Chinese fighters that return from flight with problems are unable to re-generate in less than four to five days!<sup>56</sup> They do not have a hot-pit ground refueling capability (refueling with the aircraft run-

ning) and half of all ground refueling is gravity fed. There is also no weapons integrated combat turn (ICT) capability. If a fighter returns “Code 1” (no problems), they do have the capability to fly four to five sorties per day with that aircraft.

The same problems plague the PLANAF. In addition, they lack an aircraft carrier capability (ship, aircraft, and pilot-wise), lack any ability for anti-submarine warfare (ASW) and primarily use their obsolete MiG-19s as an air defense of naval shore installations, air cover for their fleets, and reconnaissance.<sup>57</sup>

In 1982, the late Deng Xiaoping’s priorities for China’s overall modernization were agriculture, industry, science and technology, and then, national defense.<sup>58</sup> With these priorities in mind, the most important element during China’s military modernization is an emerging doctrine that emphasizes strategic attack against the most critical enemy targets.<sup>59</sup> This, in turn, has required the modernization of its space, information, long-range precision strike, and other strategic dimensions of warfare.<sup>60</sup> Following Desert Storm, ground domination continued to be a key feature of air force modernization while downgrading the air domination theory.<sup>61</sup>

Operation Allied Force once again “shocked” the Chinese. The PLAAF must now question their own modernization program which focuses upon air superiority ground attack among others, such as transporting of troops and supplies, airborne early warning and reconnaissance, electronic countermeasures, maintenance, and logistics.<sup>62</sup> If nothing else, the air war over Kosovo revealed still more improvements in US precision-guided weapons and deepened China’s perception of a growing technological gap.<sup>63</sup> As of 1995, the PLAAF did not possess any precision-guided weapons and in 1999 still only possessed a limited capability to produce effective conventional munitions.<sup>64</sup>

Although China’s “show of force” exercise in the Taiwan Straits was announced as a “combined” (read our “joint”) exercise, and there have been many other such “combined” exercises by the PLAAF, the truth is there is “no synergy from conducting combined arms operations . . . and the weakness of China’s airlift capability [A 1998 DoD report to Congress estimated China’s airlift enough for 6,000 troops to deploy, or two airborne regiments, at a time.]”<sup>65</sup> and the inability by PLAAF

to provide air cover for ships at sea remain hindrances to mobility and power projection.”<sup>66</sup> Their “combined” exercises are simulated much of the time with poor C2 capability throughout the military forces.<sup>67</sup> The 24<sup>th</sup> Air Division Commander claimed their last “joint” exercise was in 1994 when his division coordinated with air defense forces alone, not the Army or Navy.

In summary, today Chinese fighter forces consist of about 1,800 obsolete, Chinese-assembled MiG-19 aircraft, their 2,500 interceptors are still far inferior to any other Northeast Asia air force, their pilots do not receive enough or quality training, their 320 bombers are slow and vulnerable, and the PLAAF and PLANAF still cannot rely on China’s aircraft industry for indigenous production of modern fighters and bombers, or to improve existing platforms without foreign assistance.<sup>68</sup> The closest the Chinese have come to producing their own indigenous combat aircraft has been with the J-8 Finback which is actually an enlargement of the Soviet MiG-21 (J-7) layout to accommodate two engines. Initially developed in 1964, it was not until 1992 that the PLANAF *finally* agreed to put it into operational service, and that was only after significant upgrades. The upgraded J-8-2 version is co-produced with Russia and is now in service in the PLAAF as well.<sup>69</sup> The cockpit is small and cramped similar to all MiG models and forward visibility is restricted by multiple gunsight/heads-up-display (HUD) reflective glass panels and other *add-on* devices on top of the cockpit dashboard.

Their aerial refueling capability is in its infant stages and they have no Airborne Warning and Control System (AWACS) aircraft as of yet. “Given the current priority within Chinese national resource allocation, and the expected level of Chinese technological and training development, it will be many years before the PLA fields capabilities to project significant power across the region or to present a major challenge to US forces beyond its border.”<sup>70</sup>

## PLAAF Future

It is too soon after the Kosovo “shock” to evaluate how the Chinese will react in their modernization efforts. Early speculation dictates it will cause an accelerated effort at military modernization, particularly in hi-tech areas such as cruise missiles and

laser weapons.<sup>71</sup> “China will continue to actively seek advanced technology through sending students abroad, purchases from cooperative nations, and commercial partners.”<sup>72</sup> Research and development continue in fields such as stealth radar, laser weapons, electro-dynamic railguns, anti-satellite interceptors, precision-guided missiles, and many other weapons designed to focus on US vulnerabilities. Yet the Chinese lack items on the Military Critical Technologies List of modern military industries.<sup>73</sup> The “CMIC inability to design and build modern combat airframes and power plants is compounded by China’s deficiencies in essentially all other technology areas central to modern air forces.”<sup>74</sup>

The first locally produced addition to China’s air power may be the domestically developed J-10 fighter-bomber that has been in the design stage for more than a decade in collaboration with Israel. It would be similar to the F-16 and nuclear-capable, but China’s record on reverse engineering (they received an F-16 from Pakistan) is poor and it is at least 7-8 years away from development if it makes it that far.<sup>75</sup> If it is successful, the J-10 is planned to be more maneuverable than the F/A-18E/F but with less sophisticated radar and countermeasures.<sup>76</sup>

Another “significant planned aircraft purchase is the Su-30MKK (MKK: modernized commercial for China [PRC]) fighter-bombers which the PRC plans to purchase from Russia. The extended range of the Su-30MKK would allow the PRC to fly around [Taiwan] to strike the ROC’s lesser-defended eastern shore, avoiding ROC airspace over the heavily-sensored and defended Taiwan Strait. The PRC is expected to purchase 40 to 60 of the Su-30MKK aircraft, with deliveries expected to begin in 2000.”<sup>77</sup> China is also upgrading the J-8-2 to the J-8IIM co-developed with Russia. It is actually a new-generation fighter plane similar to F-16A/C, F-18 and Mirage 2000 aircraft. It will probably be equipped with Russia or China’s helmet sight and advanced air-to-air missiles.<sup>78</sup>

Chinese engineers are examining methodologies to enable the PLAAF to jam airborne early warning platforms and sophisticated networks, such as the Joint Tactical Information Distribution System (JTIDS). The Chinese also have a requirement for an ability to counter stealthy aircraft and mis-

siles. They are examining a range of designs for a long-range air-to-air missile to counter high value assets such as airborne early warning platforms, AWACS, and airborne jammers.<sup>79</sup>

More importantly, the Chinese have placed an emphasis on information warfare (cyber attack), cruise missile technology, and their strategists have grasped the concept of space dominance.<sup>80</sup>

The Chinese plan to build a lone aircraft carrier by 2005, capable of carrying 28 fixed wing aircraft. Problems with carrier-qualified pilot training, take-off and landing system, ASW technology and anti-aircraft radar technology remain key areas to resolve.<sup>81</sup> The single medium-sized aircraft carrier may be China’s token military capability intended for “prestige and showing-the-flag.”<sup>82</sup> It is interesting to note that in March 2000, Colonel Jianguo Wu, Commander of the Shanghai Navy Base mentioned he has never even *thought* of an aircraft carrier in his defense-oriented Navy.

Their recent acquisition of approximately 10 Il-76 Candid medium/long-range transport aircraft will marginally increase existing force projection capability.<sup>83</sup> The PRC is also developing an AWACS prototype aircraft through the Israelis to be delivered sometime in 2000.<sup>84</sup> Recent United States negotiations with the Israelis will delay if not cancel this delivery.

Perhaps the most significant implication of the relatively small-scale introduction of modern military equipment (such as the Su-27 and Su-30MKK) into the PLA is that only a limited portion of the officer corps and enlisted force has routine, hands-on experience in operating and maintaining truly modern equipment. As mentioned earlier,

they have no combat experience and their low level of education and technical sophistication hampers rapid modernization although a major educational campaign is underway in China.<sup>85</sup>

Additionally, the establishment of a professional non-commissioned officer program similar to that of the US armed forces is now a year old. Currently 30% of PLAAF maintainers are officers. Due to budget constraints, the Chinese can no longer afford to rely on a robust number of troops

China still seems to be seeking the quick fix or the 'killer weapons' as described earlier. Their military industrial complex remains inefficient and uncoordinated. Little has changed in 40 years in this area. China's spending on military research and development remains rather small when compared to other countries with high military expenditures except Japan and Russia.<sup>86</sup> It will probably be two decades or more before the PLA has the capacity to project and sustain military forces outside its borders, but the intention to possess the capability is very clear.<sup>87</sup> If the Chinese intent is to be able to engage the United States in a limited conflict in the South China Sea, they certainly possess the numbers of aircraft and capability to make a good first *push*, creating havoc and certainly more than a minor concern for the United States and must be carefully planned for by the USAF. William H. Overholt, Executive Director Head of Asia Macro Research of Nomura International (Hong Kong) Limited, mentioned the PLA would get "spanked" the first time they tried to attack Taiwan, and the second time, and the third time...but the US must worry about the "159<sup>th</sup> time" they attack, because they *will* attack to keep Taiwan! Yet, within the context of this same conversation with prominent strategists in Hong Kong, many interpret the Chinese February 2000 White Paper on Taiwan as a positive sign of Chinese "diplomacy." Instead of a show-of-force in the Taiwan Straits similar to that in 1996, they *backed off* to a White Paper – interesting thought, but not interesting enough to breathe easier about the Taiwan issue.

## Conclusion

This study has looked at the past, present, and future of the PLAAF, and addressed the concerns and implications for the United States and the USAF. A careful analysis of Chinese air force capabilities, present and future, is warranted because of increased tensions in the South China Sea and across the Taiwan Straits. Although the *US 1999 Strategic Assessment of the Asia-Pacific Region* states that, by 2010, Chinese naval and air forces will probably be able to prevail over any ASEAN military forces in the South China Sea and may even possess military superiority over Taiwan, the PLA will not be a match for US or Japanese forces. But new force-projection assets such as aerial refueling, improved air defenses, integrated command-and-

control systems, and information warfare capabilities will compel the attention of Washington and other nations. Systematic limited types of attacks by the Chinese in their areas of interests in the South China Sea cannot be dismissed lightly.

My research has revealed the poor quality and quantity of pilot training throughout the Chinese air forces, a defense-industrial base that does not have the depth and experience in developing and producing advanced military technologies, and an air force still stymied by a PLA dominated by strategies of land forces.<sup>88</sup> Wartime scenarios lean toward a traditional People's War (as believed by Communist Party members), or a Limited War (as believed and budgeted for by a majority of the PLA), versus a war involving RMA (as believed by a number of senior-colonels and major generals within the PLA, and certain civilian defense analysts).<sup>89</sup> Those forces advocating a RMA approach believe "military force with inferior weapons can defeat its rivals with superior weapons through scratching the weak points of high-tech weapons to counter-attack them. Military forces equipped with high-tech weapons are not so strong as what Western countries have boasted and they have many problems and weak points."<sup>90</sup> For example, during a discussion at the Chinese National Defense University in Beijing, senior PLA officials hinted they considered our Air Operations Centers (AOCs) and AWACS aircraft as centers of gravity they would attack.

The United States must be wary of the China of "tomorrow" although I would not consider it a *Red Monster*. The validity of Sun Tzu is as true today as it was in yesteryear when Deng Xiaoping's guidance to his military was *tao guang yang hui* or *conceal our capabilities and bide our time*.<sup>91</sup> The United States should be concerned with Chinese initiatives in cruise missile technology, information warfare and space dominance, all of vital interest to US national security. Additionally, although the PLAAF fly primarily "historic" aircraft, one cannot discount the cohesiveness, patriotism and discipline of the current pilot corps of the PLA air forces.

Accordingly, US military leadership, in particular USAF and USN leadership, must prepare COAs for scenarios of a limited nature possibly involving PRC and ROC forces in the near future. In the long-term, we should also maintain our combat edge by continuing our long-standing practice of

quality pilot training and military modernization of aerospace forces so as to never be second best in any conflict. This should include any and all efforts to maintain our dominance of space. Force protection of our AOCs through future reachback capability must continue and air superiority and defense of our high-value air assets (HVAA) such as AWACS must never be compromised.

The Chinese reform and modernization effort is long-term in nature and few will truly know the real combat capability of their forces at any point in time without actually flying against them. We cannot afford to be influenced by possible “smoke screens” thrown up by the Chinese if they continue with their centuries-old, superb practice of deception – when capable, feign incapacity.<sup>92</sup>

<sup>1</sup> Russell D. Howard, *The Chinese People's Liberation Army: "Short Arms and Slow Legs"* (USAF, CO: Institute for National Security Studies, Sep 1999), 7.

<sup>2</sup> David Shambaugh and Richard H. Yang, *China's Military in Transition* (Oxford: Clarendon Press, 1997), 259.

<sup>3</sup> Robert A. Manning and James J. Przystup, *Asia's Transition Diplomacy Hedging Against Futureshock* (International Institute for Strategic Studies, Autumn 1999), 43-67.

<sup>4</sup> Xia Liping, *The Characters and Impacts of the Revolution in Military Affairs* (Shanghai, China: Shanghai Institute for International Studies, Oct 1999), 18.

<sup>5</sup> Larry M. Wortzel, *The Chinese Armed Forces in the 21<sup>st</sup> Century* (Carlisle, PA: Strategic Studies Institute, Dec 1999), 208.

<sup>6</sup> Lt Col Robert B. Rigg, *Red China's Fighting Hordes* (Harrisburg, PA: The Military Service Publishing Co., Oct 1951), 321.

<sup>7</sup> Paul H. B. Godwin, *Development of the Chinese Armed Forces* (Maxwell AFB, AL: Air University Press, Jun 1988), 95.

<sup>8</sup> Rigg, 322.

<sup>9</sup> Godwin, 95.

<sup>10</sup> Harlan W. Jencks, *Politics and Professionalism in the Chinese Army, 1945-1981* (Boulder, CO: Westview Press, 1982), 46.

<sup>11</sup> Alexander L. George, *The Chinese Communist Army in Action* (New York and London: Columbia University Press, 1967), 199-200.

<sup>12</sup> Ibid.

<sup>13</sup> Rigg, 324.

<sup>14</sup> Godwin, 96.

<sup>15</sup> Ibid.

<sup>16</sup> Ibid., 95.

<sup>17</sup> Ibid.

<sup>18</sup> Ibid., 96.

<sup>19</sup> Ibid., 104.

<sup>20</sup> Ibid., 102-103.

<sup>21</sup> Ibid., 100-101.

<sup>22</sup> Rigg, 325.

<sup>23</sup> Godwin, 100.

<sup>24</sup> Ibid., 97.

<sup>25</sup> Jencks, 156.

<sup>26</sup> Godwin, 97.

<sup>27</sup> Ibid., 104.

<sup>28</sup> Ibid., 98.

<sup>29</sup> Jencks, 156.

<sup>30</sup> Ibid., 62.

<sup>31</sup> Ibid., 110.

<sup>32</sup>

<sup>33</sup> Kenneth W. Allen, Glenn Krumel and Jonathan D. Pollack, *China's Air Force Enters the 21<sup>st</sup> Century* (RAND, 1995); 7 Feb 2000, available from <http://www.rand.org/publications/MR/MR580/mr580.html>.

<sup>34</sup> Mel Gurtov & Byong-Moo Hwang, *China's Security – The New Roles of the Military* (Boulder, CO: Lynne Rienner Publisher, Inc., 1998), 122.

<sup>35</sup> Howard, 9.

<sup>36</sup> Jencks, 154.

<sup>37</sup> Shambaugh, 29.

<sup>38</sup> Ibid., 323.

<sup>39</sup> Wortzel, 30.

<sup>40</sup> Shambaugh, 30.

<sup>41</sup> Federation of American Scientists, “People's Liberation Army Air Force,” n.p.; on-line, Internet, Feb 2000, available from <http://www.fas.org/nuke/guide/china/agency/plaaf.htm>.

<sup>42</sup> Shambaugh, 30.

<sup>43</sup> Lawrence E. Grinter, *The Dragon Awakes: China's Military Modernization Trends and Implications* (Maxwell AFB, AL: USAF Counterproliferation Center, Oct 1999), 79.

<sup>44</sup> Howard, 21.

<sup>45</sup> Allen, 5.

<sup>46</sup> Howard, 20-21.

<sup>47</sup> Ibid., 17.

<sup>48</sup> Ibid., ix.

<sup>49</sup> Ibid.

<sup>50</sup> Ibid., 18.

<sup>51</sup> Ibid., 21.

<sup>52</sup> Ibid., 29.

<sup>53</sup> Walter Neal Anderson, *Overcoming Uncertainty: U.S. – China Strategic Relations in the 21<sup>st</sup> Century* (USAF, CO: Institute for National Security Studies, Oct 1999), 54.

<sup>54</sup> Wortzel, 166.

<sup>55</sup> Godwin, 108-112.

<sup>56</sup> Allen, 4.

<sup>57</sup> Godwin, 119.

<sup>58</sup> Frances Omori and Mary A. Sommerville, *Strength Through Co-operation – Military Forces in the Asia-Pacific Region* (Washington, D.C.: National Defense University Press, 1999), 106.

<sup>59</sup> Mark A. Stokes, *China's Strategic Modernization: Implications for the United States* (Carlisle, PA: Strategic Studies Institute, Sep 1999), 7.

<sup>60</sup> Ibid., 1.

<sup>61</sup> Gurtov, 123.

<sup>62</sup> Ibid.

<sup>63</sup> Manning, 43-67.

<sup>64</sup> Wortzel, 193.

<sup>65</sup> Grinter, 73.

<sup>66</sup> Howard, x.

<sup>67</sup> Grinter, 72-73.

<sup>68</sup> Howard, 20.

<sup>69</sup> Federation of American Scientists; Feb 2000, available from <http://www.fas.org/nuke/guide/china/agency/plaaf.htm>.

<sup>70</sup> Dennis C. Blair, “Posture Statement Before the House Armed Service Committee on Fiscal Year 2000,” 3 Mar 1999.

<sup>71</sup> Manning, 43-67.

<sup>72</sup> Blair.

<sup>73</sup> Wortzel, 90.

<sup>74</sup> Ibid., 193.

<sup>75</sup> Howard, 20.

<sup>76</sup> Gurtov, 124.

<sup>77</sup> David R. Rackley, “The PRC Finally Starts Its Move Toward Re-making a Bi-Polar Military World,” *Defense & Foreign Affairs Strategic Policy*, Dec 1999, 8.

<sup>78</sup> Federation of American Scientists, J-8.

<sup>79</sup> Stokes, 53.

<sup>80</sup> Ibid., 186.



- <sup>81</sup> Gurtov, 119.  
<sup>82</sup> Wortzel, 5.  
<sup>83</sup> Shambaugh, 255.  
<sup>84</sup> Rackley, 8.  
<sup>85</sup> Omori, 185.  
<sup>86</sup> Gurtov, 298-299.  
<sup>87</sup> Shambaugh, 31.  
<sup>88</sup> Wortzel, 167.  
<sup>89</sup> Ibid., 112-114.  
<sup>90</sup> Liping, 22.  
<sup>91</sup> Wortzel, 90.  
<sup>92</sup> Ibid., 93-94.

## Biography

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*Missing Man* by Carrick Yaws, USAFA '00. Courtesy of the USAF Academy Department of English and Fine Arts.



# US-Japan Defense Guidelines: Building an Equivalent Alliance

Thomas A. Drohan

As the decade of the new century dawned, Japanese and American security policy makers found themselves confronted by historic changes in the security environment. The collapse of the Soviet Union and eastern bloc unleashed democratic and nationalist forces capable of producing both lasting peace and/or chronic instability. Cold War assumptions of a common ideological threat became an even more tenuous basis for the US-Japan security relationship which, due to Japan's constitutional<sup>1</sup> ban on war potential, has never involved reciprocal defense obligations. The central question for concerned policy makers was how the US-Japan security alliance might adapt to a new era.<sup>2</sup> As the US Department of Defense (DoD) reevaluated America's global security commitments, the Japan Defense Agency (JDA) studied ways in which to update the bilateral context of its security role, the 1978 Guidelines for US-Japan Defense Cooperation. As the 1990's unfolded, two crises shaped strategic thinking in Tokyo and Washington about how to revise the framework for military cooperation – the Gulf War of 1990-1991, and the North Korea nuclear crisis of 1994. Both events exposed the US-Japan security alliance as militarily suspect and in need of close review to meet post-Cold War challenges.

## War in the Gulf

On 2 August 1990, eight divisions totaling 100,000 Iraqi troops, led by two elite Republican Guard divisions, sliced across the Iraq-Kuwait border toward Kuwait City. Within twelve hours, they had subdued the 16,000-member Kuwaiti Army and controlled all strategic nodes, and in the process doubled Iraq's share of global oil reserves to 20 percent.<sup>3</sup> A third Republican Guard division deployed against the Saudi Arabian border and threatened another one-quarter of the world's oil produc-

tion capacity.

President Bush acted decisively. He convened the National Security Council, demanded an immediate Iraqi withdrawal, and led a unanimous United Nations resolution against the invasion. He then called for a global freeze of Iraqi financial assets and implementation of full economic sanctions. Secretary of Defense Cheney boarded a flight to Saudi Arabia to discuss defense of the Kingdom with King Fahd.

The reaction in Japan on 2 August was very different. Prime Minister Kaifu convened a meeting of the Cabinet in a consensus-seeking discussion about Japan's response to this problem in a region that provided 70 percent of its oil imports. Naturally, Defense Agency inputs stressed intelligence reports of what was happening rather than suggesting politically contentious military options. The Ministry of International Trade and Industry (MITI) opposed economic sanctions, fearing oil prices would rise and Iraq would default on its \$40 billion debt to Japanese trading companies. The Ministry of Foreign Affairs (MoFA) urged support of the US position and prevailed over MITI in an emergency session on 5 August.<sup>4</sup> The next day, Japan joined the nearly unanimous UN embargo against Iraq, and the US Secretary of Defense reported he had received permission from King Fahd to deploy US troops to Saudi Arabia.

The closest US military forces were two aircraft carriers in the Mediterranean Sea and Indian Ocean, four heavy armored and mechanized divisions in Germany, and nine tactical fighter wings throughout Europe. President Bush ordered F-15 aircraft from the 1<sup>st</sup> Fighter Wing and the 2300 troops of the 82d Airborne Division's ready brigade to Saudi Arabia to deter a southward advance by the growing Iraqi army in Kuwait.

As American military forces began stream-

ing into Saudi Arabia, MoFA bureaucrats blocked Defense Agency suggestions that Japan dispatch some of its forty-three minesweepers, arguably the world's best, to the Gulf to help enforce the economic sanctions. Even Japan's economic contribution seemed difficult. Foreign Minister Nakayama explained initially that Japan could not provide financial support to any country that sent military forces to the Gulf. By the end of August, as Japan struggled to respond to the reality of 550,000 Iraqi troops in Kuwait, President Bush had ordered 200,000 troops to the Gulf in a steady buildup of forces.

Various US officials urged their Japanese counterparts to contribute to the allied cause in various ways: (1) dispatch minesweepers, C-130 aircraft, and Self-Defense Force (SDF) personnel; (2) provide cash to coalition forces; (3) provide aid to Middle East states losing oil revenue due to the crisis; (4) plan to purchase major US weapons systems; and, (5) increase host nation support of US forces in Japan.<sup>5</sup> In response, Japan's first aid package announcement on 29 August 1991 pledged \$1 billion, of which \$10 million was a cash grant to Jordan.<sup>6</sup> Officials made general references to longer term support for Turkey and Egypt in the form of construction projects. Medical supplies, tents, and food had to be sent aboard commercial chartered aircraft, since Japanese SDF aircraft were forbidden to enter a war zone. Japan Air Lines and All Nippon Airways flights reluctantly agreed to a limited number of flights to the Gulf...as long as they carried no explosive material, no weapons, no military personnel and were guaranteed a safe journey.<sup>7</sup> Due to these self-imposed restrictions, Japan paid US commercial flights to transport military equipment and personnel.

Congressional ire swelled at their supposed ally's inability to contribute meaningfully to the international military effort. In September, the House of Representatives passed an amendment to the defense authorization bill that would have begun a phased withdrawal of US troops from Japan. A frustrated Japanese Defense Minister taunted the US to send its forces in Japan home.<sup>8</sup> The US government responded by sending a team to Japan that requested financial assistance. As they returned home, the Kaifu administration announced a second aid package of an additional \$3 billion. Half of this contribution would flow to "non-lethal" military

efforts and half would be economic aid. Following talks between President Bush and Prime Minister Kaifu in New York, the prime minister announced



Japan Air Self-Defense Force F-1 fighters. (JASDF photo from <http://www.jda.go.jp/jasdf/gallery.htm>)

Japan would increase its host nation support of US forces in Japan.

In October, as the international coalition waited for economic sanctions to work and worried about the prospect of heavy casualties in a military response to Iraqi aggression, Liberal Democratic Party (LDP) faction leader Ichiro Ozawa attempted to reverse Japan's 1980 policy against collective self-defense. By regarding constitutionally prohibited "international disputes" as interactions between the United Nations and a state rather than between Japan and a state, Ozawa argued the SDF could participate militarily in the Gulf coalition since the situation was not strictly an international dispute. Faced by an opposition majority in the Upper House of the Diet, Prime Minister Kaifu would not support this verbal twist. His legal alternatives to abiding by existing political constraints on Japan's military were either to amend the Self-Defense Force law so the SDF could be sent to an overseas combat zone, or to introduce a new law.

The prime minister chose the latter course. He announced the UN Peace Cooperation Corps Bill, which would establish a Peace Cooperation Corps for United Nations duty. The Corps would consist of 1000-2000 individuals, including SDF individuals who would first lose their status as SDF members, then provide non-combat, rear support to the multinational coalition. During the intense debate in the Diet, government officials contradicted each other in tortuous attempts to contribute to a

buildup of international military force without supporting the use of force. Prime Minister Kaifu finally testified that Japan's constitution permitted only unarmed SDF participation in the UN coalition. To dispatch an armed SDF overseas constituted the use of force and collective defense, which in 1981 had been deemed unconstitutional. The absurdity of sending unarmed self-defense forces to the Gulf with neither the intent nor the capability to use credible force finally became clear to LDP and major opposition parties. They withdrew the bill in November. LDP and Komeito, the largest opposition party, agreed to propose a new bill during the next Diet session.<sup>9</sup>

The US Congress narrowly passed a war resolution in January 1991,<sup>10</sup> ending the debate on whether to continue economic sanctions or force Iraqi forces from Kuwait. The day the air war was launched, the Kaifu Cabinet established the Gulf Crisis Countermeasure Headquarters in a sputtering search for constitutionally acceptable ways to contribute to the war. Meanwhile, the month-long air war destroyed one-half of Iraqi forces, and a 100-hour ground war in February evicted the invaders in a successfully integrated air, naval and ground campaign. The thirty-two allied nations suffered 240 fatalities and 776 wounded. At one point, Prime Minister Kaifu suggested sending five C-130 aircraft to the Gulf to evacuate refugees as part of the UN coalition. However, opposition parties threatened to withdraw support for the economic aid already pledged, and the idea was dropped. Instead, Japan pledged an additional \$9 billion in economic aid, silencing most American criticism about the amount of Japan's financial commitment.<sup>11</sup> Approved by the Diet three days after the surrender of Iraqi forces, Japan's overall financial contribution of \$13 billion had become the third largest behind Saudi Arabia and the United States. Outside Japan, however, this contribution to security was generally regarded as late, low risk, and not nearly equivalent to a military commitment.

In April, six Japanese Maritime SDF minesweepers departed for the Persian Gulf under orders that constrained their actions strictly. The Prime Minister's Office established a Secretariat of the International Peace Cooperation Headquarters to negotiate among government ministries about the scope of Japan's participation in international peace efforts. While the Lower House debated the UN

Peacekeeping Operations and Other Operations Bill, cabinet members were divided on the key issue of collective action. Prime Minister Kaifu first supported, then rejected, distinctions made between collective defense and collective security.<sup>12</sup> The final agreement allowed Self-Defense Forces to be authorized, on a case by case basis, to participate in UN non-combat missions (peacekeeping and humanitarian operations) under five conditions:

1. Parties involved in conflict agree to a cease-fire.
2. Parties involved consent to the presence of the peacekeeping force and Japan's participation.
3. The peacekeeping force maintains impartiality.
4. Japan reserves the right to withdraw its participation if the above conditions are not followed.
5. Weapons are restricted to the minimum necessary for self-protection.<sup>13</sup>

Most Diet members and cabinet ministers, however, did claim to give authorization in general terms to the Defense Agency to defend Japanese territory. From this narrower perspective, the Gulf War was a siphon that drew American troops away from Japan and Korea to participate in the far-flung crisis. Officials wondered how American forces could possibly handle two major regional contingencies, as US doctrine claimed, when it had to deploy 80 percent of the VII Corps from Europe to generate an offensive ground force in the Gulf.<sup>14</sup> The American answer was that a delaying action would be initiated in one theater, presumably Korea, while the other theatre conflict would be resolved quickly, then forces would be shifted. This was not particularly consoling to the few advocates of military security in Japan, or to the many in South Korea.

US reactions to the indecisiveness of its security alliance partner ranged from bitter resignation to hopeful optimism. Some officials concluded that Japan's contributions would simply

continue to be financial, so US forces will have to carry on planning and executing military operations independently. Others were more hopeful that Japan would expand its ability to provide military contributions in times of crisis. As officials reflected on the performance of the security alliance during the Gulf crisis, uncomfortable questions were raised. If US forces had suffered more casualties during the Gulf war, would the American people support the US-Japan alliance? Private criticism was more blunt. What was the value of Japan as an ally if it could not or would not contribute militarily to a clear act of aggression in a region of shared and vital national interests? Why did Americans disregard Japan's huge financial contribution made under constitutional constraints originally imposed by the Americans themselves?

### **Post-War Strategic Adjustments**

Following the Gulf War, the United States and Russia resumed post Cold War strategic nuclear force reductions, including the removal of tactical nuclear weapons from the Koreas and from US surface vessels. At the same time, growing unrest in Central Europe and Africa reinforced the view that the future held a dangerous potential for more regional conflicts. Although American national security policy was officially one of "engagement," the post-Cold War drawdown of military forces presaged disengagement. The East Asian Strategic Initiative reports produced by the US government (one prior to and one after the Gulf War) both announced a gradual withdrawal of US forces from Asia, raising concerns on the part of the Japanese Defense Agency about a potential power vacuum in the region. How could Japan's politically constrained self-defense forces deal with a resurgent China, Russia in disarray, and the enduring military standoff on the Korean peninsula?

Events in 1992 reinforced Japanese uncertainty about the regional security environment and raised questions about their effect on Japan. For example, in February, China passed the Territorial Waters Act, claiming Japan's Senkaku Islands as Chinese territory – would the Americans publicly commit to defending the Senkakus against Chinese claims? In June, the US and Russia agreed to massive reductions of strategic nuclear weapons – would the American nuclear umbrella protect Japan against the rising power of China? In August,

China and South Korea established diplomatic relations – would an eventually reunified Korea lean toward China, away from Japan? In October, China's 14<sup>th</sup> National Party Congress emphasized the importance of military strength and the defense of territorial sovereignty. In December, China and Russia declared a strategic partnership after more or less resolving a longstanding border demarcation dispute. Russia still held the four strategically located northern islands and islets off the north of Japan that it had seized in 1945: Kunashiri, Etorofu, Shikotan, and Habomai – referred to in Japan as the Northern Territories. In addition to these developments, the policies of the new Clinton administration seemed to signal a shift away from Japan toward China: the eleven-month vacancy of the ambassadorship to Japan; the influx of China experts in place of Japan experts in the State Department; and the emphasis on economic security issues rather than post-Cold War military roles. These events and concerns conspired to promote cautious support for a broader Japanese military role in world affairs, marketed rather ambiguously under the undefined rubric of "security."

The UN Peacekeeping Operations and Other Operations Law provided the legal vehicle for Japan to participate in multilateral peacekeeping operations. From June 1992, when the PKO law was enacted, the Cabinet won Diet approval for and sent members of the SDF on a number of UN peacekeeping or humanitarian missions.<sup>15</sup> In 1992, the Miyazawa Cabinet successively sent two 600-member battalions of engineers and supply troops to support the year-long United Nations Transition Authority in Cambodia (UNTAC).<sup>16</sup> In 1993 and 1994, the Miyazawa and Hosokawa cabinets dispatched some 200 Japanese SDF transportation and staff personnel to Mozambique, supporting the United Nations Operation in Mozambique (UNUMOZ) over a 20-month period. 1994-1995 saw even the socialist Murayama Cabinet send medical, sanitation, transportation and airlift forces to Zaire, in support of the UN High Commissioner for Refugees' response to refugee outflows from Rwanda. In 1996, the Hashimoto cabinet sent forty-three transportation and administrative personnel to Syria and Israel as members of the UN Disengagement Observer Force (UNDOF).

While Japan tested its ability to participate in peacekeeping and humanitarian missions, US

participation in peace enforcement missions clarified the human costs and domestic political limits associated with multilateralism. In 1993, eighteen American soldiers were killed in a shootout with armed gangs in Somalia. Under congressional pressure, President Clinton had withdrawn all US forces from the United Nations Operation in Somalia (UNOSOM) by 1994. By the next year, all other UNOSOM forces had been withdrawn. In 1995, pinprick air strikes by the North Atlantic Treaty Organization (NATO) prompted Bosnian Serbs to take 400 UN hostages from the ranks of the UN Protection Force. No hostages were Americans because the United States had declined to provide ground troops to the militarily constrained 37,000-member force. NATO eventually responded by creating a more powerful and credible Implementation Force of 60,000 troops, which won US participation.<sup>17</sup>

Japan also attempted to broaden its security role through closer defense ties to South Korea registered sudden gains. In 1991 and 1992, defense white papers published annually by the government of the Republic of Korea (ROK) accused Japan of planning to become a military superpower with an aggressive forward defense that would replace a receding US presence. The 1992 White Paper, however, emphasized the importance of military personnel exchanges with Japan, encouraged Japan's enhanced defense relationship with the United States, and acknowledged Japan's expanding regional security role. The Republic of Korea's Ministry of National Defense organized a policy group to manage Japan issues as a bilateral security relationship. Defense Minister Rhee Byoung Tae visited Japan and proposed exchange visits and student exchanges, port calls, and air safety coordination. Even the October demand by Defense Minister Choi Sae Chang that the International Atomic Energy Agency (IAEA) upgrade its inspections of Japan's nuclear reactors in preparation for the 1995 review of the Non-Proliferation Treaty (NPT) did not halt increased security ties.

### **North Korean Nuclear Crisis**

In 1992, it appeared that the collapse of the Soviet Union had had the effect of increasing the relative stability of the mercurial Korean Peninsula. Russia's cutoff of funds to North Korea led to a South-North agreement on non-aggression, ex-

changes, and de-nuclearization of the peninsula. North Korea agreed to put into permanent storage spent fuel rods that contained enough plutonium for several nuclear bombs. Even the negative developments in North Korea – decline in gross national product (GNP) of 20 percent, \$10 billion in foreign debt, shrinking trade, and massive starvation – were interpreted as signs of the North's weakness.<sup>18</sup>

But undercurrents of Cold War strategic thinking proved capable of instantly reversing sanguine predictions of North Korean pliability and peace on the peninsula. In March 1993, North Korea announced its withdrawal from the nuclear Non-Proliferation Treaty, simultaneously heightening regional fears of its nuclear potential, challenging the US nuclear guarantee to its Asian allies, and stoking concerns about a broader Japanese military role.

Negotiations between North Korea on the one hand, and the United Nations, United States, and South Korea on the other, dragged on for a year, with successive delays. A UN resolution calling for inspections of suspected nuclear sites was frustrated by repeated North Korean attempts to gain control of the inspections limiting their effectiveness. Agreement was reached eventually with the 1994 Agreed Framework, calling on the United States to compensate North Korea with two light water reactors and oil supplies in return for the sealing of three nuclear facilities, removal and storage of plutonium waste, and monitoring by the International Atomic Energy Agency (IAEA) of the suspected nuclear sites.<sup>19</sup>

During the crisis, South Korean officials expressed ambivalence toward any nascent Japanese military role, while at the same time moving to expand ties with Japan's defense officials. Foreign Minister Han Sung-joo stated that Japan was unlikely to become a military superpower, while President Kim Young Sam openly worried that if North Korea proved to have developed a nuclear capability, Japan might be prompted to follow suit. ROK Ministry of Defense and JDA officials exchanged views on organizational restructuring and weapons procurement policy. Annual exchanges started between the Defense Ministers of both countries, the Chairmen of the Joint Staffs, and between the ROK War College and Japan's National Institute of Defense Studies; officials of the Korea Institute for National Unification made regular vis-



its to Japan to discuss security cooperation; annual defense talks began between the ROK Defense Counselor and Japan's Director of Policy and Plans, and among lower-level plans, intelligence and operations officers; and the Maritime Self-Defense Force and the ROK Navy began to exchange port calls.

In light of the new ROK-Japan ties and Japan's continuing participation in peacekeeping operations, officials of the US Department of Defense and of the Japanese Defense Agency discussed the possibility of making a joint response to various possible scenarios that might develop in North Korea. A North Korean missile capability outside the context of the Non-Proliferation Treaty was acknowledged as a common threat, but Japan's policy restrictions precluded SDF military action unless Japanese territory was attacked or clearly about to be attacked. The absence of emergency defense legislation posed a particular problem. If the SDF used force to resist even a limited incursion, it would lack legal authority and political cover against a certain barrage of opposition criticism. JDA officials expressed to their DoD counterparts a desire to support US forces in worst case scenarios, but bemoaned the lack of a legal framework upon which to act.

Consequently, even in a clear case of North Korean aggression, US military forces would be able to act in coordination with South Korean forces, but could not expect to act with Japanese forces. Prudent military planners excluded Japanese participation, on the basis of the political unreliability of Tokyo's military commitment. Just as in the Gulf War, the US-Japan alliance seemed incapable of producing a joint military response. In a debrief session similar to that held after the Gulf conflict, American and Japanese officials wondered how the alliance could survive Japan's non-participation in a shooting war on the nearby Korean Peninsula. The failure of the alliance to stand up to an obvious regional threat to Japanese secu-

rity clarified the need for change.

### Post-Crisis Strategic Adjustments

Change had been in the works since February 1994, when Prime Minister Hosokawa appointed an advisory group chaired by Hirotaro Higuchi to recommend revising the 1976 National Defense Program Outline (NDPO). Changes in the international environment alone called for such a revision: the Gulf War experience of the effectiveness of coalition forces against regional aggression; the evaporation of Soviet hostility; the isolation of North Korea; and, the prospect of a unified Korean Peninsula. The situation of Japan's domestic economy, in recession since 1990, only reinforced the strategic quandary that Japan faced.<sup>20</sup> Under the Japanese Constitution, Japan's only realistic option was continued dependence on the US military guarantee. The



Capt Eiichi Katou, JASDF, discusses exercise procedures with Capt John Silance, USAF, during Exercise Cope North Guam '99. (USAF photo by Master Sgt. Val Gempis)

Higuchi Report was drafted during the North Korean crisis and completed in August after the establishment of an LDP-SDPJ coalition government under Prime Minister Tomiichi Murayama.<sup>21</sup> The usual ambiguous references were made about the need for cooperative and comprehensive security, using the tools of diplomacy, economics, and "defense."<sup>22</sup> Collective defense was ruled out again, and all previous policy constraints were affirmed, such as Japan's 1957 Basic Policy for Defense, the exclusively defense-oriented policy, not becoming a military power, and three non-nuclear principles.

The Higuchi Report made more tangible recommendations regarding military forces. Increases in air mobility, satellite capability, and logistic support for US forces, and improvements in US-Japan planning, training, and consultations could arguably be accomplished with a smaller force that emphasized air and naval capabilities. Ground SDF divisions would be reduced by one-third and main battle tanks by one-fourth. Quantitative reductions allowed qualitative equipment up-



grades and mobility for more joint and multilateral missions within budget constraints.<sup>23</sup> The report's overall thrust was to retain the US-Japan relationship as the core security tie, but to reduce dependence by expanding Japan's freedom of action. This would require initiating military ties with other states and increasing participation in peacekeeping operations, arms control, and regional dialogues.<sup>24</sup>

Japan's multilateralist tilt attracted the attention of DoD policy makers interested in the principal military benefit of the security alliance – bases. US officials were particularly concerned about how to maintain a sharp combat edge in Japan despite growing local constraints on military training.<sup>25</sup> Assistant Secretary of Defense for International Security Affairs Joseph Nye initiated DoD-JDA meetings to promote better consultations and in February 1995 released a report entitled *United States Security Strategy for the East Asia-Pacific Region*. The DoD report pledged to continue the familiar formula of unlike contributions to security, citing Japan's Official Development Assistance, host-nation support, and humanitarian/peacekeeping operations as advancing mutual interests in regional and global stability. For its part, the US would maintain 100,000 US troops in East Asia, including the 45,000 troops on bases in Japan, to preserve a credible military capability to deter and, if needed, to respond to regional crises.

With the situation in North Korea in mind, the JDA convened meetings to discuss the impact of the new National Defense Program Outline recommendations on the 1978 Guidelines for Defense Cooperation. In July and August 1995, China conducted pre-announced live-fire naval exercises near Taiwan, presenting Tokyo and Washington with the externally sensitive and internally divisive question of how the alliance might respond to regional aggression. Discussion of this perennial problem was derailed the following month, however, when US servicemen raped a schoolgirl in Okinawa. Public outrage over the brutal crime was inflamed by the fact the offenders were US military personnel based in Japan. As opinion polls registered a spike in public disapproval of the US military presence in Japan, Prime Minister Hashimoto formed the Special Action Committee on Okinawa (SACO) in November to deal with the burden placed on Okinawa, where 75 percent of the land used by US Forces Japan was located.

Joining in the public's rage against the US military presence, Okinawa Governor Masahide Ota refused to renew land lease agreements that permitted US military use. Prime Minister Hashimoto felt acute pressure to win the return of the eleven American facilities, training areas, airfields and seaport. The 1995 NDPO was approved in November, beginning the force restructuring recommended in the Higuchi Report with a succession of five-year Mid-Term Defense Plans. With Japan's incremental increase in defense capability programmed, months of intense bargaining ensued between DoD and JDA, the central government and Okinawa prefecture, and among Okinawa municipalities. As teams of officials chiseled out a tentative agreement on the partial or complete return of each of the sites, Chinese military actions tested the security alliance's resilience.<sup>26</sup>

In March 1996, China again announced live-fire naval exercises near Taiwan, neatly timed to influence Taiwan's first free presidential elections and drive a wedge into the US-Japan defense guidelines discussions. During SACO negotiations over the details of US basing, Japan's need for the US military guarantee overcame anxiety about being drawn into a Taiwan crisis. Intelligence assessments about the participating Chinese military forces matched Beijing's verbal assurance that there was no intent to invade Taiwan. The US deployed two carrier battle groups east of Taiwan (USS *Independence* and USS *Nimitz*), an action that was publicly supported by the Hashimoto Cabinet and materially made possible through basing arrangements at Yokosuka. Not divulged at the time was the prime minister's order to deploy an Air Self-Defense Force E-2C early warning aircraft near the Taiwan Straits. The surveillance aircraft patrolled and monitored the area, while the Maritime Self-Defense Force supplied oil to US carrier group vessels. Despite Japanese domestic concern over the US presence, the security alliance produced a successful result consistent with its unequal contributions. What Chinese leaders saw was an American military countermove made possible through alliance with Japan.

### **Clarifying Alliance Terms**

The month following China's intimidation of Taiwan, Prime Minister Hashimoto met US Ambassador Mondale to finalize the SACO recommen-

dations, then hosted a summit meeting with President Clinton that reaffirmed the security alliance to its multiple audiences. The Clinton-Hashimoto Joint Declaration on Security announced the general terms of continued US-Japan security alliance: the US military presence and commitment to the defense of Japan, increased Japanese financial support, and enhanced Japanese military capability. In addition, the declaration proclaimed a regionally relevant alliance based on common values: freedom, democracy, and human rights. Finally, the declaration set forth joint objectives: cooperation with key neighboring powers China, Russia, and South Korea, and participation in more multilateral actions such as UN peacekeeping operations, humanitarian missions, and crises in the Middle East and Balkans.

From April 1996 to September 1997, Defense Guidelines negotiators from the Japanese Defense Agency and the Japanese Ministry of Foreign Affairs on the one hand and from the US Department of Defense and the Department of State on the other wrangled over how to achieve these joint objectives and coordinate a credible JSDF role within existing constitutional and policy constraints.<sup>28</sup> The Acquisition and Cross-Servicing Agreement (ACSA), which would provide some Japanese support for the training of US Forces Japan (USFJ), joint exercises, and operations during emergency situations, was approved in the spring.<sup>29</sup> A routine procedure in other US military relationships throughout the world, US-Japan ACSA negotiations extended over two years, and finally became a reality when the US side, working through the Cabinet National Security Office, broke a deadlock between the Ministry of Foreign Affairs and the Japanese Defense Agency regarding reimbursement for supplied items. In August 1997, the Defense Agency decided to study SDF participation in a Theater Missile Defense (TMD) system, prior to a government decision on joint development with the United States.<sup>30</sup> Although TMD was considered separately from the guidelines as a part of the technology cooperation process, DoD negotiators considered the project vital to protecting deployed US forces.

The most difficult talks concerned military operations, which were eventually categorized into three groups. First, there were actions that clearly could be carried out within existing constraints,

such as defensive counter-air or naval operations in Japanese territory. Second, there were steps that clearly could not be carried out, such as Japanese air or naval strikes against strategic targets outside Japan's territory. Third, there were gray areas where constitutional or political prohibitions were unclear. Scenarios such as Japanese defensive counter-air or naval operations against forces in hot pursuit of US forces in international airspace or waters would fall in this category.<sup>31</sup>

Referring to the precedent set in the 1978 Defense Guidelines of expanding regional cooperation and extending the defense line (*boei sen*) against potential attacks on Japanese territory and administrative areas, negotiators now portrayed a more complicated threat environment.<sup>32</sup> For the first time, negotiators were forced to shed ideological assumptions of the Cold War that a heavily armed Soviet Union constituted a common threat. There were insufficient grounds to assume hostile intent from China, and the guidelines were not directed against China or any particular state. Indeed, whether China would threaten US or Japan interests depended on Chinese actions. In the absence of an assumed common threat agent, threat conditions such as civil unrest causing regional instability, the spread of catastrophic weapons, or a cross-border external attack in the region, were to be evaluated and decided upon by each government quite separately. Policy positions arrived at independently would then be coordinated in an effort to achieve an exchange of interests under the general terms of the April 1996 Clinton-Hashimoto Joint Declaration on Security.

Despite the more sophisticated view of the threat environment, there remained the practical military necessity to plan and practice defense scenarios if the alliance were to be credible. US policy makers viewed Japan's lack of any political commitment to take military action against clear aggression that effected Japanese security as causing damage to alliance credibility. Some Japanese defense officials were frustrated at the lack of political will on the part of the Japanese government to counter any threat other than the remote chance of a direct attack on Japan. The disintegration of the Soviet Union had removed the state that was the alleged common threat to security, and in this so-called post-Cold War setting, where the main threat was taken to be the condition of insecurity rather

than the predatory intent of a specific state, relations with neighboring states seemed more important than in the past. Compared to the public congruence of US and Japanese policies toward the Soviet Union, the security priorities of the United States and Japan toward China, Russia, and South Korea differed. As a result, rather than being able to develop specific plans and policies against common threats, policy makers encountered limits to cooperation that allowed only incremental improvements in coordination.

In relation to China, the joint objective of both the United States and Japan was to improve the degree of cooperation with China. It was thought that this crucial ingredient of regional stability was put at risk by any revision of the Defense Guidelines that increased Japan's military contribution to security, because China viewed any increase in Japanese military capability as a threat. US priorities were to enlist Japan in regional defense, promote democratization and human rights in China, and encourage economic openness and free trade. Japanese priorities focused on retaining the US military guarantee while developing a bigger regional role for itself, and on promoting economic development without preaching liberal politics or economics. In addition, due to domestic constraints and the need to accommodate China in the absence of an independent Japanese deterrent, Japan held to Defense Guidelines that narrowly defended Japan. As a result, Japan sought more cooperation with China than did the United States, and Japan perceived Chinese military actions in regional scenarios as being less threatening than the United States saw them.

Japan's top security priority in relation to Russia, the normalization of Japan-Russia ties and return of the Northern Territories, was thwarted by the US-led expansion of NATO. Russian opposition to an enlarged NATO to the west complicated resolution of the territorial dispute with Japan to the east. Japan's diplomats walked a tightrope between acknowledging Russian fears of strategic encirclement and ascribing expansionist motives to NATO that undercut the position of Japan's guarantor of military security, the United States. Consequently, Japan favored mollifying Russian anxieties about NATO expansion in order to resolve the dispute over the Northern Territories. Any security interest the United States had in normalization of relations

between Japan and Russia, however, was secondary to the priority of expanding NATO among democratic, economically solvent states. The US security policy of supporting political and economic reforms in Russia (as in China) contained liberal assumptions about individual rights, economic competition without government intervention, and the legitimate use of military force that lacked the support of Japan's ruling coalition.

As far as South Korea was concerned, differences in US and Japanese security priorities proved fatal to any possibility of establishing joint operations. Japanese officials were more eager to develop bilateral cooperation than South Korean officials, due to residual South Korea public resentment against the 1905-1945 Japanese occupation of Korea. The United States, as a traditional military ally of South Korea, dealt with South Korea and Japan independently, according to the institutional frameworks set up with each security partner. The presence of a joint command structure in the US-South Korean military alliance, and its absence in the US-Japan security bargain, meant that any tri-lateral mechanism would involve Japan in a coordinated rather than an integrated role. Domestic constraints on the military prevented Japan from making any military commitment to South Korea, while South Korean opposition to military ties with Japan precluded any commitment to Japan's defense. Given these differences, US-Japan cooperation with South Korea could not be a joint effort, but rather a coordination of separate activities.

Lack of a Liberal Democratic Party majority in Japan's Lower House after the election of October 1996<sup>33</sup> and the LDP's need to ally with the Sakigake Party and Social Democratic Party in the Upper House, meant there was little chance for domestically driven changes in Japan's relationships with China, Russia and South Korea. The main opposition party leaders, Ichiro Ozawa (Shinshinto) and Naoto Kan (Democratic Party of Japan) were particularly keen to seize any opportunity for a center-left alternative to the LDP's conservative coalition. In the United States, Republican control of both the House of Representatives and the Senate similarly constrained any substantial policy changes considered by the Democratic Clinton administration. The result was that in September 1997, when the Security Consultative Committee (consisting of Foreign Minister Obuchi and Minis-

ter of State for Defense Kyuma for Japan, and Secretary of State Albright and Secretary of Defense Cohen for the United States) unveiled the new Defense Guidelines, they announced only modest clarifications of military roles. Within the scope of the Security Treaty, the guidelines called for enhanced coordination within existing constitutional constraints.

### The Revised Guidelines

The September 1997 Defense Guidelines announced an outward orientation to promote regional peace, prosperity, and stability, and attempted to provide an inward clarification of what each side could actually deliver to the relationship. Instead of emphasizing cooperation during conflict as in the 1978 guidelines, the new guidelines outlined more effective and credible US Japan cooperation during peacetime. US contributions to security were unchanged, providing nuclear deterrence, forward-deployed forces in the region, and other forces that could reinforce those forces. Japan's military contributions, however, were specified with respect to context and content. The guidelines established three general situations that prescribed broad parameters of defense cooperation – normal circumstances, during armed attack, and in areas surrounding Japan that will have an important impact of Japan's security.

During normal circumstances, cooperation would involve increased information and intelligence-sharing, more policy consultations, promoting regional security dialogues, defense exchanges, international arms control and disarmament, and participation in UN peacekeeping or humanitarian relief operations. The guidelines vaguely promised to look for more ways to provide mutual support, but gave specific authorization for the preparation of procedures for cooperation in the fields of transportation, medicine, information-sharing, education

and training, emergency and disaster relief, and defense and mutual cooperation (operational) planning. By endorsing the need to coordinate details of military activities, the guidelines forced practical discussion of what could and should happen if there were an attack.

In the event of armed attack, arrangements would be nominally the same as before, with US and Japanese forces conducting bilateral operations to defend Japan. Under the 1978 Guidelines, at least one "plan" (US planners' term) or "draft study" (Japan planners' term) was developed for the defense of Japan against a Soviet threat. However, combined (bilateral) operations would have been hampered by politically mandated differences in assumptions about military threats. Even though Japan's defense line excluded the Soviet Far East



A three-aircraft flight of JASDF C-1 medium-lift cargo jets. (JASDF photo from <http://www.jda.go.jp/jasdf/gallery.htm>)

and North Korea, for instance, it had to be assumed that the threat would originate from one of those two areas. This illogicality prevented bilateral analysis of specific threats, hampering strategy and preparation. Moreover, Japan's policy prohibition against collective self-defense prevented a single command structure to control effectively the wide range of defense

activities. Without actually planning and practicing the most likely scenarios, bilateral operations would have been at best coordinated unilateral operations, and at worst uncoordinated actions that reduced mutual effectiveness.

Under the new guidelines, a commander's concept of operations would be developed into a jointly constructed operational plan against specific threats. In the event of having to defend Japan against an attack or large-scale infiltration, combined and bilateral operations centers would be formed, manned by US and Japanese forces. Due to the continued restrictions against collective self-defense, American and Japanese forces would work through coordinated national chains of command. Alliance credibility is enhanced by spelling out na-

tional commitments: “the United States will introduce reinforcements in a timely manner, and Japan will establish and maintain the basis to facilitate these deployments.” Japan receives reassurance that the United States will provide additional mobility, strike power, and reinforcements during hostilities.

Between normal circumstances and armed attack lay a panoply of scenarios—emergencies in areas surrounding Japan that have an important impact on Japan’s security. In these cases, the guidelines laid out three types of functions the SDF might perform:

1. Cooperation in activities initiated by either Government, including relief activities and measures to deal with refugees, search and rescue, non-combatant evacuation operations and activities for ensuring the effectiveness of economic sanctions.
2. Japan’s support for US Forces’ activities such as use of facilities and rear area support (supply, transportation, maintenance, medical services, security, communications, and others).
3. Japan-US operational cooperation, including surveillance, mine-sweeping and sea and airspace management.<sup>34</sup>

In contrast to the previous guidelines which only generally referred to cooperation in regional situations, the new guidelines would institutionalize cooperation by establishing two mechanisms, complete with bilateral committees, for coordinating policy, and planning and executing operations: the Bilateral Coordination Mechanism, with its Bilateral Coordination Forum and Bilateral Coordination Center; and, the Comprehensive Mechanism, with its Bilateral Planning Committee (the titles of these mechanisms are not helpful – the Bilateral Coordination Mechanism is intended to be more comprehensive than the narrower, military-oriented Comprehensive Mechanism).

The Comprehensive Mechanism and its Bi-

lateral Planning Committee (BPC) of military planners would establish a three-layer process that generates joint concepts and plans: a joint management board consisting of the directors of plans; a joint coordination group consisting of the deputy directors of plans; and, joint working panels consisting of those who plan the details of operations based on guidance from their respective national chains of command. At each level members would meet regularly to create concept plans and more specific contingency plans for regional scenarios.<sup>35</sup>

The Bilateral Coordination Mechanism (BCM) was called for to coordinate bilateral operations, intelligence, and logistical support, and to obtain necessary support from Japanese government agencies. The components of the BCM are the Bilateral Coordination Forum and the Bilateral Coordination Center. The US side of the Bilateral Coordination Forum consists of military functional directors in US Forces Japan and embassy political military officers. On the Japan side of the forum, directors from the Defense Agency, Ministry of Foreign Affairs, and Cabinet Security Affairs Office would attempt to coordinate US requests for support, and task a dozen government agencies. The Bilateral Coordination Center constitutes the bilateral military linkage, and consists of the USFJ and JDA’s Joint Staff Office that will manage operations, intelligence, and logistic support activities. This military center is subordinate to the civilian-dominated forum, with the former sending explicit requests for support to the latter for decisions. The coordination function would allow military planners to count on what merely had been assumed before: fuel supplies, airport and seaport access, holding areas for troops, repair and maintenance facilities, radio frequencies, medical supplies and treatment of casualties, and a host of other details, many of which are opposed by Japan’s prefectural politicians.

### Aftermath and Approval

After the Guidelines were announced, the military and political implementation mechanisms progressed at different paces. The Comprehensive Mechanism got off to an early start, producing a Memorandum of Understanding (MoU) in January 1998. Planning guidance was issued, planning panels formed, and with regular meetings agreement on a common strategic concept began to emerge.

Over a period of several months, JDA's priority of defending Japan and DoD's priority of countering a broad range of threats in East Asia were written into a compatible plan.

In contrast, the Bilateral Coordination Mechanism languished as a result of disagreement between the Ministry of Foreign Affairs and the Defense Agency, where a turf battle simmered over how to broker the interagency process. It was argued that because of constitutional restrictions, no MoU could be produced until the Diet passed legislation needed to implement the guidelines.

Because of fears that any change in the SDF mission would be subject to criticism both at home and abroad, a minimalist approach to the guidelines ensued. That is, only minimal SDF action would be permitted without specific legal authorization. Control of SDF activity, rather than flexibility and rapid response, was the overriding objective. The implementation laws of the Defense Guidelines contained three elements. First, a new guidelines law regarding "measures Japan may implement in response to situations in areas surrounding Japan" would allow for the provision of rear area support to US forces, would authorize search and rescue (SAR) operations, and would define cabinet coordinate procedures. Second, amendment of current Self-Defense Force laws would add ships and helicopters to aircraft for non-combatant evacuation operations (NEO) transport, would permit the evacuation of non-Japanese citizens, and would give field commanders the authority to use weapons in self-defense. Third, the Diet would approve the revised Acquisition and Cross-Servicing Agreement.

The price the ruling coalition had to pay to win Diet passage of these laws was being set by a shifting scene of opposition parties whose leaders generally favored more restrictions on the SDF.<sup>36</sup> Ensuing rounds of negotiations included not only guidelines legislation, but also tax reform, governmental restructuring, and an economic stimulus package.<sup>37</sup> Members of Komeito (Clean Government Party), Japan Communist Party (JCP), and the Democratic Socialist Party (DSP) were eager to debate legalities of the guidelines, regarding even logistic support to US forces as unconstitutional. JCP Policy Coordination Committee Chairman Hideyo Fudesaka charged that the new guidelines would allow preemptive US strikes against third parties,

and that Japan would be drawn in through its support role. LDP spokesmen countered by clinging to key policy limits, such as that rear area support would be kept quite separate from any combat zone, and that SDF participation would be allowed strictly on a case-by-case basis.

In January 1998, the announcement by Prime Minister Obuchi and Secretary of Defense Cohen that Japan and the United States would research jointly a TMD system drew more criticism, based on a 1969 Diet resolution on the peaceful use of space and a 1976 government ban on weapons exports. In July, the Maritime Self-Defense Force declined to participate in NEO maneuvers during the well-established Rim of the Pacific (RIMPAC) exercise,<sup>38</sup> citing lack of legal authority to practice rescuing Japanese citizens overseas. As the Diet considered legal distinctions, the prospect of a divisive public debate chilled the ruling coalition. Fearful of potential policy differences, LDP leaders postponed submitting guidelines legislation until after the Upper House elections. The 11 July elections handed the LDP a massive defeat, with the LDP losing 16 seats while the Democratic Party of Japan and JCP registered large gains. Prime Minister Hashimoto resigned, and was replaced by Keizo Obuchi after an election within the LDP on 24 July.

The Guidelines debate was made more urgent in August by the reappearance of a North Korean threat. Without warning, Pyongyang test-fired a two-stage missile<sup>39</sup> over Japan, claiming it was an attempt to launch a satellite. The first and second stages bracketed Japan, falling into the sea to the west and east. The American and Japanese allies quickly disagreed on what they perceived was the purpose of the launch and laid blame for the disagreement on each other. US officials said the launch was a failed attempt to put a satellite into orbit, and claimed to have warned Japanese officials that North Korea was about to initiate a launch. Japanese officials thought the launch was a Taepodong I, and interpreted Washington's satellite theory as a desire to not derail North Korean compliance with the 1994 Agreed Framework. Tokyo officials also blamed US intelligence for withholding information on where the missile impacted. Still, the US Pacific Command sent six B-2 and B-52 aircraft to Guam and put 36 F-16's at Misawa Air Base on alert, while the Defense Agency alerted the Aegis missile cruiser *Myoko* in the Sea

of Japan.

The alliance's immediate policy reaction was also at odds. Japan announced its unilateral withdrawal from the Korean Peninsula Energy Development Organization (KEDO), leaving South Korea and the United States as the organization's only members. This action, later reversed at the behest of US officials, suspended food aid and assistance for light-water nuclear reactors, as well as talks to normalize diplomatic relations between Japan and North Korea.<sup>40</sup> As details of the post-launch crisis action became known, the Japanese public criticized dependence on US satellite intelligence, lack of coordination among internal governmental security agencies, and the evident inability to do anything about a surprise missile attack.

After the launch, four initiatives sowed the seeds for improving Japan's ability to respond to actual threats. First, the government decided Japan did indeed possess the right to attack missile sites in North Korea if necessary for self-defense. However, as Defense Agency Director General Nukaga made clear during Diet hearings, there was the small matter of needing aircraft with air refueling capability to actually reach the launch sites – a capability the Diet consistently had rejected. Second, there was broad recognition of the need to improve the emergency notification process among the Defense Agency, Foreign Ministry, key Diet members, and Prime Minister's office. New JDA Director-General Norota<sup>41</sup> proposed to lead a study of emergency legislation to deploy the SDF during security crises.<sup>42</sup> Third, support for an independent reconnaissance satellite capability grew, partly out of the disagreement over what the launch was and whether warning was adequate. Japanese accounts of the intelligence flow claimed US intelligence was not forthcoming, therefore not reliable. US officials insisted Japanese Foreign Ministry officials did not share the information that the United States provided within their own government.<sup>43</sup> Fourth, elements of the ruling coalition began the politically suicidal step of revising the Constitution itself. A group initially established in 1997, consisting of members from five parties, prepared to submit a bill that would create a Diet research panel to study constitutional amendments.<sup>44</sup>

As the LDP and Liberal Party (LP) maneuvered to form a coalition for an Upper House majority, Komeito merged with Shinto Heiwa (New

Peace Party) in November to form the New Komeito, the second largest opposition party behind the DPJ (65 seats). In December, Okinawa Governor Ota was defeated by Keiichi Inamine, whose election promises included the construction of a joint-use (military-civilian) airport somewhere in Okinawa to replace the US Marine Corps' Futenma Air Station. This breakthrough in the Tokyo-Okinawa deadlock immediately won economic aid to Okinawa. The 1999 budget deadline brought Inamine to Tokyo on his first day of office. Because of the need to achieve consensus with New Komeito, LDP-LP leaders needed to resolve the Okinawa issue before drafting sensitive guidelines legislation in the spring.

In April 1999, the Lower House approved the Defense Guidelines implementation legislation drafted by the special committee. The laws contained three revisions that diluted the effectiveness of the original 1997 guidelines. First, the law that originally was to provide for "measures Japan may implement in response to situations in areas surrounding Japan" was narrowed to "situations in which the peace and safety of Japan are gravely threatened." How the words "gravely threatened" will be implemented remains to be seen, but it certainly leaves ample room for serious emergencies and crises that can damage Japan's security without threatening Japan's existence. Second, the clause concerning inspections of ships was removed, delayed to a Diet session at a later, unspecified, point in time. It is unclear whether ship inspections would occur only under United Nations authorization, or in situations determined by Tokyo authorities. Third, a new clause was added to require Diet approval before SDF support operations in non-combat zones and search and rescue operations could be carried out. In theory, Diet approval could follow SDF actions in high-level emergencies. Ironically and unique to Japan in the entire world, the Diet restricted its own military forces from receiving Japanese logistic and operational support, but allowed for US forces to do so directly from private organizations, and central or local governments.

## Conclusions and Recommendations

The US-Japan defense guidelines emerged from the strains of unequal cooperation during the Gulf War and the inability to jointly counter a po-



tential North Korean threat. The alliance had lost military credibility in an interdependent yet competitive world where military capability still mattered. Strategic adjustments made by Japanese and American security policy makers throughout the 90's included increased participation in multilateral actions, but recognized the need to reserve the right to use force against regional threats. In the absence of a constitutional mandate to deter and defeat threats to its values and legitimate interests, Japan's bilateral relationship with the United States has continued to provide the best channel in which to exercise self-defense.

The basic inequality between the respective contributions of the United States and Japan to security cooperation under the so-called US-Japan security alliance has presented persistent challenges for bilateral relations. Rather than based on reciprocal defense commitments and joint missions, the US-Japan security relationship has consisted of unlike contributions. Presidents and prime ministers, DoD reports to Congress and JDA white papers, and State Department and Ministry of Foreign Affairs diplomats have continually reaffirmed the exchange of political, economic, and military interests. Shared values and common goals have provided a vision and the rhetoric of cooperation, but the concrete terms of alliance reveal cooperation as an exchange of different benefits and interests. The US provides an external military guarantee and regional security, while Japan provides bases, host nation support, official development aid, and a self-defense capability.

The same constitutional and policy restrictions that have limited Japan's military contributions in the bilateral alliance shape Japan's multilateral options. Multilateral military initiatives have been confined to permissive activities: peacekeeping operations, humanitarian relief, defense exchanges and relationship-building. Lacking a power projection capability, Japan has relied on the US military guarantee. This institutionalized dependence has allowed it to maintain constructive relations with China, Russia and both North and South Korea. At the same time, Japan has different security priorities toward these regional powers that reinforce the unequal US-Japan security alliance, allowing only minor adjustments to this basis for cooperation.

A product of compromise between the need

for change and the constraints imposed by differing perceptions of the respective security roles of the United States and Japan, the revised guidelines are a realistic, incremental adjustment to the post-Cold War changes in the security environment. The Japanese parliament and coalition cabinets have acted with deliberation, and have produced domestically acceptable changes in the terms of the alliance. Important issues remain, but it is unlikely Japan will either be propelled toward security autonomy or reverse course toward increased dependence on US military protection. It seems much more likely that debate about the guidelines will result in some contention over clarification of what Japan can and cannot do militarily in the alliance.

In this type of an alliance, it is important that policy makers recognize the domestic limits on security cooperation. Bilateral differences such as values on human rights, degree of economic openness, and the legitimate use of force need to be discussed to build common values and interests. At the same time, policy makers are charged with recommending changes based on their respective interests in order to retain a realistic basis for cooperation. Until Japan and the United States contribute similarly with reciprocal defense obligations, the bases-for-economic support/self-defense formula provides the only workable basis for security alliance.

Looking toward the certainty of change in the next century, the security alliance can best adapt with three types of limited adjustments. First, military-economic agreements can retain the US military guarantee in exchange for Japanese financial compensation and economic contributions to security. The limits are American reluctance to provide mercenary services, reduced Japanese ability to pay, and the exclusive benefits of economic aid. The very recent decision to reduce Japan's host nation support payments in the next five-year agreement illustrates a current constraint to adaptation. Second, enhanced military cooperation can replace the military-economic quid pro quo with mutual commitments against clear threats such as terrorism, drug trafficking, and external aggression. The limits are Japan's constitutional and political restrictions on its military role. So far, there has been no recent loosening of this strait jacket. Third, technological advances can produce new areas of security cooperation within existing restrictions, such as



Senior Airman Tom Patterson, USAF, explains his maintenance checklist to members of a JASDF maintenance team during Exercise Cope North '99, at Andersen AFB, June 1999. (USAF photo by Master Sgt. Val Gempis)

technology transfer issues. The limits are economic interests deemed to be matters of national security. The potential to cooperate in theater missile defense represents one such opportunity. Through incremental adjustments that test the limits of domestic constraints, US-Japan security policy makers can build a more equivalent alliance that meets new challenges.

*This article, in slightly different form, was originally published as Policy Paper 238E by the Institute for International Policy Studies. Copyright by Editorial Group, Institute for International Studies, 1999. Reprinted with permission.*

<sup>1</sup> Japan's 1946 Constitution was written and imposed upon post-war Japanese authorities by American Occupation forces under General MacArthur whose initial objective was to demilitarize undemocratic Japan. The Constitution, still unamended, renounces war, the threat of force, and maintenance of military forces.

<sup>2</sup> Security alliance refers to a broad exchange of political, economic, and military interests, rather than traditional military alliance based on a common threat. The definition of security is two-fold: an ideal condition, and a realist process. As an ideal condition, security is the absence of threats to acquired values (see Arnold Wolfers, "National Security as an Ambiguous Symbol," *Political Science Quarterly* 67

relative advantage over various types of threats, whether those threats are individuals (criminal), groups (terrorists), or situations (starvation).

<sup>3</sup> Lawrence Freedman and Efraim Karsh, *The Gulf Conflict 1990-1991* (Princeton: Princeton University Press, 1993), 67.

<sup>4</sup> Courtney Purrington and A. K., "Tokyo's Policy Responses During the Gulf Crisis," *Asian Survey*, Vol. 31, No. 4, April 1991, 308. Purrington and A. K. also point out that Kaifu failed to convene and chair the Security Council, relying instead on ad hoc collections of ministerial inputs during the crisis.

<sup>5</sup> Purrington and A. K., 308.

<sup>6</sup> The King of Jordan was not committed against Iraq but Jordan was estimated to lose 30 percent of its national income due to the economic sanctions.

<sup>7</sup> Freedman and Karsh, 123.

<sup>8</sup> *Japan Times*, 30 September 1990.

<sup>9</sup> Purrington and A. K., 313-314.

<sup>10</sup> The Senate vote was 52-47; the House vote was 250-183.

<sup>11</sup> Freedman and Karsh, *The Gulf Conflict 1991-1992*, 359.

<sup>12</sup> The distinction was that if the SDF were dispatched overseas under UN command rather than Japan Self-Defense Force command, this would constitute collective security rather than collective defense, and therefore be constitutionally permitted.

<sup>13</sup> *Defense of Japan 1997*, 68.

<sup>14</sup> In a study initiated by former Secretary of Defense Les Aspin, the Clinton administration's "Bottom Up Review" reassessed "all of our defense concepts, plans, and programs from the ground up." Following the review, US forces still planned for two simultaneous Major

environment.

<sup>15</sup> For a comparison of American and Japanese views on UN operations, see Selig S. Harrison and Masashi Nishihara, eds.: *UN Peacekeeping: Japanese and American Perspectives* (Washington DC: Carnegie Endowment for International Peace, 1995).

<sup>16</sup> Two 600-member strong engineering battalions were sent for successive six-month duty from September 1992 to September 1993. Missions included repairing roads and bridges and supplying UN-TAC with water, fuel, food, medicine, and tents. *Paths to Peace: Japan's Contributions to World Peace* (Tokyo: Jiji Gaho Sha, 1996), 3, 6.

<sup>17</sup> Illustrating the high cost of peace enforcement was the comprehensive plan of retired Lt Gen William Odom, which laid out an invasion to reduce the violence, prevent conflict from spreading, allow for negotiations to occur, stop ethnic cleansing, and deny territorial predation. To accomplish these aims, he estimated 300,000 to 400,000 troops would be required to destroy Serb tanks and artillery and to establish adequate fortifications throughout Yugoslavia. Wayne Bert, *The Reluctant Superpower: United States' Policy in Bosnia, 1991-95* (New York: St Martin's Press, 1997), 179-180.

<sup>18</sup> Byung-joon Ahn, "The Man Who Would Be Kim," *Foreign Affairs*, Vol. 73, No. 6, November/December 1994, 94-108.

<sup>19</sup> If constructed, the three facilities reportedly could reprocess the plutonium to make 20-30 bombs a year. Byung-joon Ahn, 102-3.

<sup>20</sup> Japan's economy had been in recession since at least 1990, when 5.5 percent annual real GDP growth plummeted to an annual average of 0.5 percent. *Asahi Shimbun Japan Almanac 1999* (Tokyo: Toppan Printing, 1998), 81.

<sup>21</sup> Japan's first Socialist prime minister since the 1950's was made possible by Hosokawa's March 1994 reform of the 1947 electoral law. The reforms replaced the exclusive multi-member district system with a combination of single-member plurality and multi-member proportional representation in larger sized districts. These changes increased political competition and led to the rise of more new parties.

<sup>22</sup> The public use of the term "defense" rather than "military" reflects the political restrictions on Japan's military capability, even though (or perhaps because) it confuses the analytical distinction between political, economic, and military tools of security policy.

<sup>23</sup> The continued informal budgetary limit of 1 percent of GNP is believed by many observers to provide politicians and bureaucrats civilian control of the military.

<sup>24</sup> In December 1994, the Defense Agency's National Institute for Defense Studies held the first annual Asia-Pacific Defense Symposium of regional military officers.

<sup>25</sup> Over the years, widespread local opposition to any military presence has produced numerous restrictions that damage combat readiness such as port city bans on military vessels, reductions in aircraft night landing practice, and the absence of any large-unit ground maneuver training. Without realistic public appreciation of the need to maintain fighting skills, knowledgeable officials worry that military skills in Japan may be suffering the death of a thousand cuts.

<sup>26</sup> The total return of six facilities (Futenma Air Station, Aha Training Area, Ginbaru Training Area, Sobe Communication Site, Yomitan Airfield, Naha Port) and partial return of five facilities (Northern Training Area, Senaha Communication Site, Camp Kuwae, Makimatan Service Area, Camp Zukeran) constitute a return of 21 percent of the total land used by US forces on Okinawa.

<sup>27</sup> "Lack of Decision-making Holds Security Hostage," *The Daily Yomiuri On-line*, 7 March 1999.

<sup>28</sup> Negotiators operated under the authority of the Security Consultative Committee (US Secretary of State and Secretary of Defense, and Japan Foreign Minister and Minister of State for Defense) and managed by the Subcommittee for Defense Cooperation (US Assistant Secretary of State, Assistant Secretary of Defense, and US Embassy officials, Joint Chiefs of Staff representative, US Pacific Forces, US Forces Japan, and Japan Foreign Ministry's Director General of the

North American Bureau and Joint Staff Council representative). Meetings between US deputy assistant secretaries and Japan deputy director generals oversaw detailed discussions. *Defense of Japan 1998* (Tokyo: Japan Defense Agency, June 1998), 192.

<sup>29</sup> The 1996 ACSA permitted Japanese support of US military activities only during peacetime.

<sup>30</sup> Since 1993, the US Navy has worked on a Theater-wide Missile Defense system to shoot down ballistic missiles threatening fleet operations. JDA's decision to conduct feasibility studies of TMD were subject to government concerns over its high cost, estimated at \$10 billion over 10 years, questions about how effective it could be, and China's opposition to any defensive system that could protect Taiwan from Chinese attack.

<sup>31</sup> Interview with involved Department of Defense and Defense Agency officials, Washington and Tokyo, February-March 1999.

<sup>32</sup> The final section of the 1978 Guidelines, overlooked until the review, left the door wide open to a regional reorientation: "The governments of Japan and the United States will consult together from time to time whenever changes in the circumstances so require. The scope and modalities of facilitative assistance to be extended by Japan to the US forces in the case of situations in the Far East outside of Japan which will have an important influence on the security of Japan will be governed by the US-Japan Security Treaty, its related arrangements, other relevant agreements between Japan and the United States, and the relevant laws and regulations of Japan." *Defense of Japan 1997*, 323. This defense line was generally agreed within the Government of Japan to include Taiwan and South Korea, but not North Korea. Areas of the Russian Far East were outside the defense line, even though Japan had programmed its force posture against a Soviet threat from the north. Interviews with Defense Agency and US Forces Japan officials, Tokyo, March-May 1999. This Ministry of Foreign Affairs position on the defense line and the US-Japan Security Treaty includes Japanese territory and areas under the administrative control of Japan. This interpretation excludes the disputed Northern Territories but includes the Senkaku Islands as falling under the US alliance obligation to defend Japan.

<sup>33</sup> The October 1996 national election was the first time since 1958 that an opposition party, Shinshinto, garnered enough Lower House positions (156 seats) to deny the Liberal Democratic Party (239 seats) a single-party majority in the 500-seat Diet.

<sup>34</sup> *The New Guidelines For Japan-US Defense Cooperation* (Tokyo: Defense Agency, 1998).

<sup>35</sup> In US military lexicon, a contingency plan is one which is "on the shelf" waiting to be implemented. After being quickly tailored to fit a developing world situation, a contingency becomes an operational plan (OPLAN), complete with scheduled flow of forces and support material.

<sup>36</sup> When the main opposition party (Shinshinto) leader Ichiro Ozawa disbanded the party in December 1997 to create a loyal core renamed the Liberal Party, its Diet membership dropped from 173 seats to 54 seats. The Democratic Party of Japan (Naoto Kan) became the largest opposition with 138 seats, while former Shinshinto members began a sequence of small party formation and disintegration that further fractured opposition to the LDP.

<sup>37</sup> Budget decisions were further sharpened by the contracting economy. By the summer of 1998, Japan's economy had recorded GDP contraction for four consecutive quarters. Corporate capital spending had fallen 2.7 percent, on the way to a 5.7 percent decline by the fall, the third largest decline on record.

<sup>38</sup> The SDF had been participating in RIMPAC since 1980 based on the need to train for the defense of Japan by protecting sea lines of communication. The division of military roles was publicly codified in the 1978 Guidelines for US-Japan Defense Cooperation, and further emphasized in the Reagan-Suzuki Communiqué of 1981.

<sup>39</sup> North Korea reportedly has three missiles under development with increasing ranges: Nodong (620 miles), Taepodong I (1250 miles), and Taepodong II (3700 miles).

<sup>40</sup> Japan Foreign Minister Komura later reversed the suspension to achieve the longer term goal of buying North Korean agreement to abandon nuclear weapons development.

<sup>41</sup> Director-General Norota replaced Fukushima Nukaga after the Diet passed a resolution criticizing the latter to take the blame for a cover-up in a Defense Agency procurement scandal. Nukaga's 19 November resignation was announced the same day that the Liberal Democratic and Liberal parties announced their "Ji-Ji" alliance for the 1999 Diet session.

<sup>42</sup> The study council would consist of Diet members, administrative vice ministers, chiefs of the Defense Policy Bureau and Defense Operations Bureau, Chairman of the Joint Staff Council, chiefs of the Ground, Air and Naval Self-Defense Forces, and head of the Defense Intelligence Headquarters. *Yomiuri Shim-bun*, 9 January 1999.

<sup>43</sup> US officials were actually briefing Ministry of Foreign Affairs officials from the Intelligence and Assessment section when news of the Taepodong missile launch broke.

<sup>44</sup> The group consists of members from the Liberal Democratic Party, Liberal Party, Democratic Party of Japan, New Komeito, and Kaikaku Club – 640 of 742 Diet seats. *The Japan Times*, 10 February 1999.

## Biography

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Two P-3 Orion antisubmarine aircraft--one from the Japan Maritime Self-Defense Force and one from the US Navy--fly patrol over a combined force of JMSDF and USN ships during Exercise RIMPAC '98. (DoD photo by Petty Officer 1st Class Spike Call)



# Logistics for the Complete Beginner

Patrick A. Grieco

*If an army marches on its stomach, why do they need shoes?*

Logistics: now there's a word that gives shudders to most sane people. Logistics is the art or science (or perhaps a bit of both) of keeping an armed force well and properly supplied with all the items needed to successfully conduct a mission, an operation, a campaign, a conflict, or a war. It is getting personnel, equipment, and supplies from one location to another in time for them to be used effectively in on-going operations. Vast volumes have been written, in exhaustive detail, on the intricacies of accomplishing these things. The purpose here is not to repeat those efforts but rather to approach the subject from a different angle, from a simpler standpoint, to get at the concepts behind logistics. By doing so, the overall subject should become more understandable to the average person. No matter what you do, sooner or later you will deal with logistics in one way or another. Understanding the concepts will provide the foundation necessary to allow you to deal later with the more intense applications in a more meaningful way. Logistics can seem complicated, but in reality it can also be as simple as a shopping trip.

## **The shopping trip**

Bob Jones noticed during the course of the week that he was running low on groceries. He was almost out of milk. The cereal was gone. The TV dinners had all been eaten. It was time to make a shopping trip. So he wrote a list, including all the essentials and some extras such as spare batteries, soda, ice cream, etc. He grabbed his wallet and checkbook and decided whether to take the minivan or his hot little sports car. Since he was going to buy a week's worth of stuff, he decided the trunk space on the sports car was too small to handle everything in one trip. The minivan it was then.

Once at the grocery store, he had his list in hand and money in his pocket. He had his grocery cart and the minivan was waiting outside in the parking lot. He walked down the aisles slowly filling up the cart with items on the list and occasionally some items that came to mind or that just looked r-e-a-l-l-y good. Eventually he finished and made his way to the checkout counter where he piled everything on the conveyer belt and the cashier rang up each item. After paying by check, he pushed the cart (now filled with overflowing bags) out to load the van. Done, he pushed the cart aside, climbed in behind the wheel and drove home. Once parked in his driveway, he unloaded everything, making several trips from the van to the house carrying as many bags as possible at one time. He made sure however that the frozen food was taken in first so it did not spoil. He put all the stuff away, placing items like the extra batteries in the cupboard where he kept all the spares. By now it was time for supper, and he made a meal using some of the just acquired food.

Pretty everyday kind of stuff isn't it? In fact everyone probably does this frequently, at least a couple times a month, maybe even once a week or so. But what did Bob Jones just do? He took an inventory of what was needed and decided on the best means to move the material from point A to point B. He procured the items at the store and distributed it to his house, selecting appropriate transport and prioritizing what items were moved indoors first. He established a system of spares to maintain his battery operated devices if the old batteries gave out. Finally, he replaced all the food he needed to last another week. Bob had been doing logistics all along and just didn't know it.

How about if Bob were buying supplies for the soccer team cookout or a Boy Scout camping trip? Now he might be dealing with multiple parents, many cars, reconciling different lists and dif-

to coordinate getting everything purchased, packed up, and delivered to the location of the cookout or camp site. Yet the essential planning, procurement, and organizational skills are the same, simply expanded to another level of complexity. The decisions made for trips to the grocery store or to arrange a cookout or camping trip are the same types of decisions made when dealing with matters of military logistics. They differ only in matters of scale and the materiel being dealt with.

### **Horse and cart**

In a sense then, much of what is done on a day-to-day basis involves a type of logistics. From that basis, it is a simple step to move away from the day-to-day and into the military arena. To do so, let's step back some into a "simpler" world of horse drawn carts and examine a situation during a time when the fastest way to get someplace was often to walk there. Using the following scenario, we will work our way through the "logistics" of that situation.

### **It's just a simple march**

A unit of 100 men is given orders to move on a ten-day march from point A to point B. Food and water are available at both locations but the soldiers will have to carry enough with them for the march. Without rucksacks, each man is capable of carrying one day's supplies, but that is obviously not enough to last for the entire trip. They have carts, drawn by a single horse, to carry supplies to sustain them for the rest of the way. Each cart can carry ten days rations for ten men. Therefore, ten carts equals 10 days rations for 100 men. Pretty simple and straightforward isn't it? But what if the rations don't include water? Ok, one cart can carry ten water barrels. Twenty men use up the water from one barrel each day. That means 100 men use five barrels a day. Therefore they will need fifty barrels for the ten-day trip. Fifty barrels means five more carts. 10 carts for rations, 5 carts for water; that brings us up to fifteen carts.

With the math thus far, it's still pretty easy to figure the number of carts in relation to the men. But have we forgotten something? What about the horses? Well, each cart has one horse pulling it. Those horses need grain and water to keep them going on the trip. Sure, horses could graze along the way under the right conditions, but for our pur-

poses, let us assume that the trip between A and B is not all that friendly a stretch to travel and they will need to bring supplies for the horses as well. Those one-size-fits-all, multipurpose carts can carry fodder and water for horses as easily as they can for the men marching. In fact one cart will carry enough grain and water to take care of two horses for ten days. So for fifteen horses they will need ... eight more carts. Right? Nope, wrong. Because every cart that carries horse supplies has a horse pulling it that increases the need for carts with horse supplies. Ouch! ... We're starting to talk real math here. Eight more carts will require four more carts to carry supplies for the additional eight horses. Those four more carts will require two more carts to carry supplies for the additional two horses which in turn will require one more cart...well you get the picture. We have yet to even consider the requirements for the men driving the carts or how much ammunition to transport. (If you would like to figure the rest of it out, let's say that one of our multipurpose carts carries enough ammunition for twenty men for ten days under normal conditions. Double the ammunition requirements if you wish to have enough for moderate combat. Don't forget the supplies for the extra horses to pull the carts and for the cart drivers. Have fun and remember to round any fractions up to make sure you have enough!)

As you can see, successful logistics requires dealing with the details of an operation. It is not just 100 men marching ten days to reach point B. It is the details of making sure that they have what they require along the way and once they get there. Just from this small example, it is easy to see why the logistics tail of an operation usually is larger than the fighting force it supports. The scenario was predicated on fairly limited requirements and on an unlimited supply of carts. What happens if that force of 100 men was faced with a limited number of carts? Let's limit the number of carts and horses available to thirty to see what one might do in that situation.

### **Let's change the rules**

Thirty carts and horses! That's not even enough to carry food and water for the men and horses, never mind account for the extra required for the horses pulling the ammunition carts and the cart drivers themselves. How can they accomplish



the task at hand (the ten-day march to point B) if they don't have enough carts to get everything there?

Actually there is something they can do. They can change the rules.

### **Prioritize**

With only limited assets to transport what is needed to do the job, the unit has to decide what is most important. Ammunition is essential for the troops to be able to conduct operations. Ammunition then will become the first priority. Water and food will come second and third. But do they really need everything that they had intended to bring?

### **Change the requirements**

Having prioritized what the unit needs, there are still not enough carts for all its requirements. At this point the unit is faced with changing requirements to meet the realities of limited transport. The troops will just have to make do with less and carry more of the supplies themselves. Having enough ammunition is vitally important. But do they really need a ten-day supply? Could they get by with less on hand, at least for the duration of the march? Can the troops survive on less food and water? Depending upon the climate and the time of

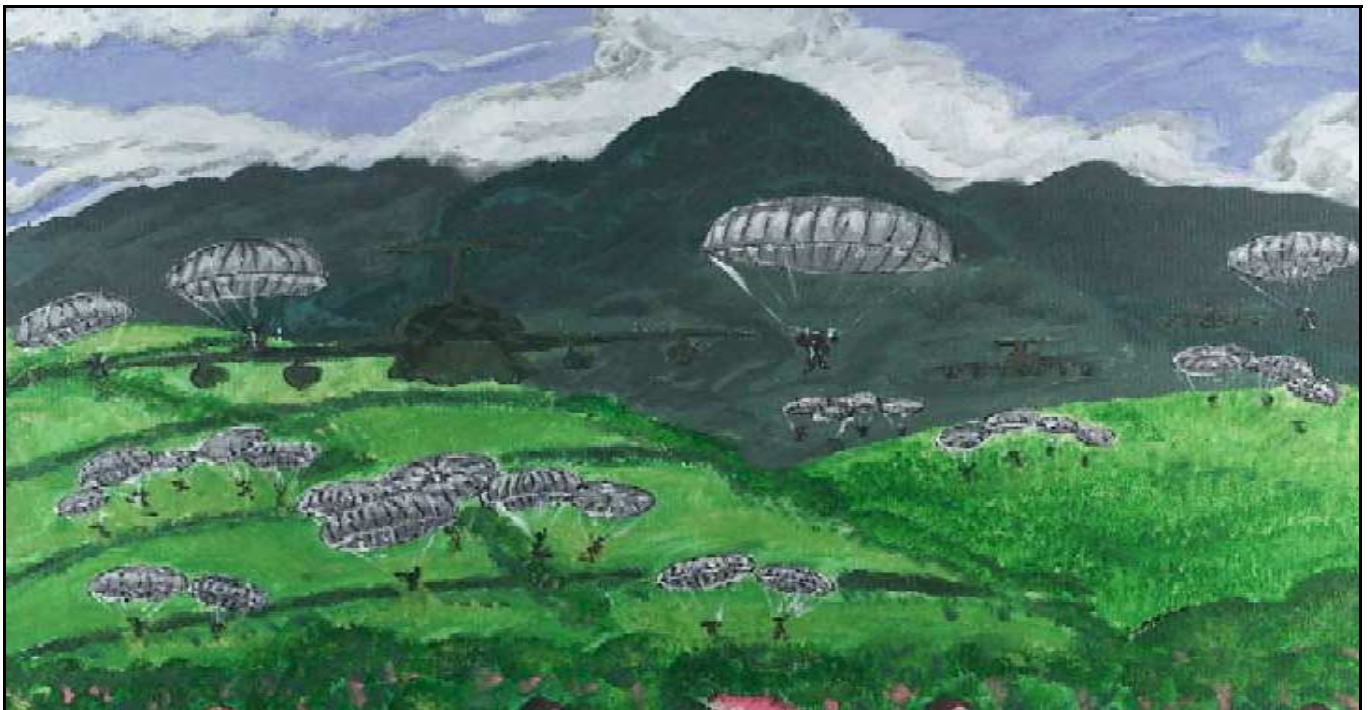
year, some requirements might be more hard and fast than others, but if they can reduce what the troops need to bring, the unit's transportation needs can be downsized.

Let us say the amount of ammunition required on the march for normal operations is reduced to three days worth per soldier. Additionally, each soldier will also now carry a rucksack with three days normal supply of food, water, and required ammunition and be prepared to make do with half-rations if necessary. In a pinch then, the soldiers could travel for six days before they would need to be resupplied. Now the ammunition carts are no longer needed and the remaining carts can turn back after the first four days. The troops could survive on half rations for the remaining six if need be. However, besides the disadvantage of marching on half rations, the supplies needed to support the horses and drivers for their eight-day round trip must still be accounted for. Requirements and the need for transport have been reduced but we have done so at a cost of reduced capability (less ammunition and half rations). Although that might be necessary, perhaps there is a way to reduce the transport requirements and still maintain capability.

### **Supply depots**

Requirements have been prioritized and

*Airborne Drop* by Oscar Garcia, USAFA '01. Courtesy of the USAF Academy Department of English and Fine Arts.





downsized in an attempt to reduce needed transport. The result, however, somehow is not what was intended. Although there are creative ways to reduce the transport requirements and still meet most of the original requirements (i.e., use pack horses and make the men carry the additional load specified above), for the purposes of this example, let us stick to the horse and cart transport system. Since ammunition was set as the first priority, its availability to the men should be maximized during the march. Additionally, rather than have the men march on half rations for the last six days, there must be some way of allowing resupply that won't require fifty or so carts to do the job. Well there is – supply depots.

Using the available carts, a series of supply depots containing ammunition, water, and food could be established at two to three day intervals along the trail from Point A to Point B. A regular resupply routine could also be established, based on a weekly inventory of available materiel, with carts bringing only those items required to make up the shortfall identified in the inventory and to sustain themselves while on the trip. With these supply depots in place, our troops need not rely upon the limited number of carts for support. Carrying that three-day supply of ammunition, food, and water in their rucksacks, the unit is now able to move unimpeded by support considerations. Under normal circumstances, they should never be more than two to three days away from a depot where they can replace items consumed along the way.

### **From the ideal to the real**

We have only scratched the surface of logistics, purposely keeping the examples simple, with only limited considerations to determine our basic operational and transportation requirements. In real life, that troop of 100 men would have been concerned with spare parts for their rifles, tents, spare wheels for the carts, extra harness leather to repair broken horse leads, reins, and equipment straps, and dozen of other considerations that we did not look at. All of them would have, to some extent, had an impact on the amount of transport required.

We started with an ideal situation. We started with the mission of getting 100 men from Point A to Point B. We started with the assumption that there were unlimited carts to carry all the supplies needed for the ten-day march. We then deter-

mined how many carts and how much supplies would be needed to get those hundred men from A to B. However, the ideal did not last very long. There was an important limitation. There just were not that many carts available. The mission could not be done as originally intended, so the rules were changed. Prioritization of what was needed took place. Requirements were changed to fit the new circumstances. Finally, the entire system of how business was done was changed in order to maximize the limited assets available to get the troops to where they needed to be. That is the essence of logistics. Maximizing limited assets to get prioritized units, equipment, and materiel to where they need to be, when they need to be there. Finally, when the plan that was developed is written down, the means exists to quantitatively track how well things are going, rearrange assets, and reprioritize as the situation changes.

It is only a short leap from the example of horse and cart transportation to trucks, sealift, airlift, and spacelift. On face value the leap is tremendous in terms of systems and capability, but the concepts remain the same. Replace grain for the horses with fuel for the trucks, ships, planes, and spacecraft. Increase the capacity a thousand fold. But in the final analysis, we are still talking about getting personnel and the items they need to survive, sustain them, and do their jobs from Point A to Point B.

The math for our simple scenario was done using pencil and paper and some simple calculations. In today's world, complex computer programs have been developed to help work the problem of moving units, thousands of personnel and their equipment, across global distances in order to accomplish their mission. But the essence is still the same: setting the mission and determining the units and how to get them to the right location with the required supplies and equipment, all the while prioritizing, setting requirements, and changing the rules as necessary.

The commander receives the mission. The staff plans, under the commander's guidance, how to do the mission, determines the units required, and sets the priority for getting each to where they need to be. Logisticians then work to make it all happen, frequently in a dynamically changing environment, where available transportation assets, mission requirements, supplies on-hand, and some-

times even the availability of units are constantly changing.

### **We are all logisticians**

We are all in a sense logisticians. We cannot help but be, for logistics is an integral part of everything we do. We deal with matters of logistics on a day-to-day basis. We use our pencil and paper to plan out the countless things we do everyday. We inventory our needs and use our limited assets to maximize what we can buy. We prioritize what we need to take with us and make plans to get the rest later or change our plans to do without it. We change the rules of the game, sometimes even deciding to do something else entirely if what we have, or can get, or can carry is not enough to do what we wanted to do in the first place. The difference between planning and accomplishing that shopping trip or soccer team cookout and the scenario of the ten-day march is essentially one of scale and mission. Likewise, the difference between the scenario and today's modern logistics for a complex operation is also one of scale, mission, and the tools used by logisticians to get the job done. Logisticians are set apart only by the understanding and use of those tools. Do not be intimidated by obscure names or complex computer pro-

grams. They are just a fancier version of the pencil and paper used to do the math for the shopping trip and the scenario.

### **Biography**

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A1C David McHugo unloads a cargo pallet from a C-17 at Dili airport in East Timor during Operation Stabilise, 30 September 1999. (USAF photo by Master Sgt Val Gempis)



# Force Support for the Expeditionary Air Force: A Function of Logistics Capability

Ronald N. Dains

*I don't ever, ever, ever want to hear the term logistics tail again. If our aircraft, missiles and weapons are the teeth of our military might, then logistics is the muscle, tendons, and sinew that make the teeth bite down hard and hold on – logistics is the jawbone! Hear that? The JAW-BONE!*<sup>1</sup>

*Lieutenant General Leo Marquez*

Lieutenant General Marquez's comment serves as a rallying call for logisticians and support personnel to change their attitude toward their technical professions. For years the expressions "logistics tail," "near the tip of the spear," and "supporter not a warrior" served as constant reminders that it seemed as if, in the Air Force leadership's eyes, one must wear wings to be deemed critical to the mission. I can remember attending Aircraft Maintenance Officer School and hearing one of my classmates remark that he "hated being a second class citizen because he didn't get selected for UPT out of the Air Force Academy." Somehow our institution made him feel unimportant or in today's vernacular, like a "loser." This feeling is not new to our armed forces. In the movie *Patton*,<sup>2</sup> George C. Scott eloquently reenacted General Patton's address to the Third Army. He elicited a surge of patriotism and a "can do" spirit by stating that "Americans love a winner" and that "Americans will not tolerate a loser;"<sup>3</sup> thereby drawing on the power of positive association. If you were a front-line troop in WWII you were a winner; nothing else was important. Unfortunately, then as now, the things and people we associate with often hold little regard for the sacrifices made by the many people behind the scenes. While associating with the highly visible aspects of service is healthy in

"winning" team, it may be detrimental in the long run if people lose sight of their roles and responsibilities by focusing their efforts on proving their worth solely through methods of association.

Visit an Air Force base today and you will see Air Force members in either a green, gray, or blue flight suit depending on their function as flight crew or space and missile operations. Some service personnel may also wear polo shirts or wind suits with embroidered logos specific to their office, and non-surgical personnel may be wearing scrubs at clinics and hospitals. You may sense that people in general have an aversion to being found in a set of blues or, heaven forbid, a set of BDUs. This is not to question the validity or functional necessity of the clothing, rather it questions the rationale commanders, managers, and policy makers use to justify the need and expenditures to provide these special items. Are we focusing too much on the seemingly pervasive need to associate with "winners" (read those in flying career fields) and thereby foregoing association with the larger Air Force team? Or are we maintaining a clear view of the Air Force mission, membership in the profession of arms, and just trying to boost morale?

This article is based on the premise that we, as an institution, are allowing unit and functional individuality to slowly erode our sense of mission and esprit de corps. The problem may be exacerbated by a seemingly unclear purpose for the Air Force today when compared to the Cold War years. How do we, as Air Force leaders, motivate our people, (especially those in support functions) to value their role on the larger Air Force team while allowing the power of association to remain as normal and healthy organizational behavior? The sheer number of people in

leadership challenge relatively easy. Of the 363,724 officer and enlisted members in the Air Force in January 1999, only 39,982 are in flying specialty codes – just under 11 percent of the total force.<sup>4</sup> Our leadership challenge then, is to ensure the remaining 89 percent of the Air Force fully understand how important they are to the mission. Even more importantly, we must all understand how we can mesh the 11 percent and 89 percent together to accomplish our mission.

Fortunately we have a ready-made teaching tool in the Core Competencies as outlined in *Air Force Doctrine Document 1* (AFDD-1). With the answers so readily available, all that remains is for us to teach our people and start changing the culture of today's Air Force; more importantly, we must continuously demonstrate how vital support (logistics) functions are to the accomplishment of the Air Force Mission. This paper serves three purposes: (1) to emphasize the critical role logistics plays in Air Force and mission accomplishment; (2) to caution all members that taking logistical support for granted (with the view of improving operational capability) may adversely impact readiness and capability; and, (3) solicit our senior leadership to place greater emphasis on logistics as an Air and Space Power Function.

### **Air Force Basic Doctrine**

For many leaders, especially those who have been around the Air Force since just prior to Desert Storm, mere mention of AFDD-1 brings back chilling memories of the days when *Air Force Manual 1-1* (AFM 1-1) came out. General Merrill A. McPeak, then Chief of Staff of the Air Force, decreed that he expected officers and senior enlisted members to know AFM 1-1, Volume I, and at least be conversant in Volume II. It's probably a safe bet that there are thousands of editions still in shrink-wrap, or at best filling those pesky two-inch gaps in many professional libraries. Perhaps by realizing that AFM 1-1 was a flight surgeon's best cure for insomnia, Air Force leadership decided something had to be done to get people interested in doctrine. Being a problem solving, or image conscious service, we decided to create doctrine documents with pictures, graphs, bolded items, and package them in neat looking manuals. To further ensure people

would accept and read these manuals, they were printed in booklet form perfectly sized for the lower leg pocket on a flight suit or a thigh pocket on a BDU. It was a great start, but what has happened? People in the Air Force still wonder what it is they're doing and how they "fit in." Very often the answer to questions on this matter elicits a condescending, "You don't have the big picture." It is quite possible the people answering the questions recite this colloquialism due to their own inability to understand the Air Force mission or have not thought through a solution. Why? Perhaps they do not realize that the "big picture" is found in a small document – AFDD-1, *Air Force Basic Doctrine*. More importantly, we as leaders do a poor job, outside of classroom settings, of emphasizing the importance of **every** Air Force member knowing basic doctrine. With the Expeditionary Air Force now being implemented, and uncertain future threats, it becomes more critical that all Air Force people – active, reserve, and civilians – especially support personnel, understand our doctrine or our *raison de etre*.

### **Core Competencies versus Air and Space Power Functions**

Perhaps an overarching problem with the seemingly "taken for granted" view of force support lies in AFDD-1 itself. The core competencies of Air and Space Superiority, Precision Engagement, Information Superiority, Global Attack, and Rapid Global Mobility<sup>5</sup> are readily supported by or further refined in one or more of the 17 Air and Space Power Functions. These functions are: Counterair, Counterspace, Counterland, Countersea, Strategic Attack, Counterinformation, Command and Control, Airlift, Air Refueling, Spacelift, Special Operations Employment, Intelligence, Surveillance, Reconnaissance, Combat Search and Rescue, Navigation and Positioning, and Weather Services.<sup>6</sup> To a casual observer nothing may seem to be missing. After all, isn't the Air Force only about airplanes, bombs, and satellites? These functions represent an "end product" for the Air Force. If you know your doctrine you should have noticed that in the above list of core competencies, Agile Combat Support was omitted. The omission was done purposely because in AFDD-1 there is no further

refinement or support for this competency in the list of Air and Space Power Functions. Is **logistics** not included as an Air and Space Power Function because it is too broad a topic to grasp? Or could it be that it doesn't necessarily involve aircraft and therefore doesn't require "winged" operators, hence it shouldn't be an Air and Space Power Function? Or is Agile Combat Support listed as a Core Competency merely to throw a "bone" and placate the support fields? I submit that all of these are true. For this reason our Air Force leaders must facilitate increased understanding of logistics and institutionalize logistics (Agile Combat Support) as a warfighting skill – especially in this era of the Expeditionary Air Force.

### **Logistics Defined and Understood in the Context of *Joint Pub 4-0***

Paul G. Kaminski, Undersecretary of Defense for Acquisition and Technology, addressed the 12th National Logistics Symposium and Exhibition in October 1995. His prepared remarks were entitled "The Revolution in Defense Logistics,"<sup>7</sup> in which he stated that "[he] found the subject of logistics is of growing interest to our warfighters." By what did he mean, "warfighters?" Is the logistician any less a warfighter than the pilot, infantryman, or tanker? Do logisticians just "punch" the clock and work "normal" office hours? Hardly! Had Mr. Kaminski read the definition of logistics in AFDD-1 he might have reconsidered his term "warfighter," and perhaps more importantly recognized the fact logistics **is an operational** (read "war fighting") art. The definition of logistics in AFDD-1 (taken from *Joint Pub 1-02*) follows:

The science of planning and carrying out the movement and maintenance of forces. In its most comprehensive sense those aspects of **military operations** which deal with: a. design and development, acquisition, storage, movement, distribution, maintenance, evacuation, and disposition of material; b. movement, evacuation, and hospitalization of personnel; c. acquisition or construction, maintenance, **operation**, and disposition of facilities

of services.<sup>8</sup> (emphasis added)

Mr. Kaminski came close to calling logisticians "warfighters" when he spoke of logistics' role in Operation Desert Storm. He quoted John Chancellor of NBC news as saying, "This was a logistician's war. Logistics, the movement of troops and supplies, made all the difference."<sup>9</sup> This statement of Mr. Chancellor's should not have come as a surprise. In the Executive Summary of *Joint Pub 4-0*, the notes of emphasis (in the margin) state that, "Logistics is the foundation of combat power."<sup>10</sup> The supporting text states that "Logistics is the bridge connecting a nation's economy to a nation's warfighting forces."<sup>11</sup> How important was logistics to our success in the Gulf War? Some interesting statistics help paint the picture.

The Air Force alone used fifteen million gallons of jet fuel *a day* [emphasis in original] at the height of the war. ... Storing, transporting, and issuing this fuel remained a significant obstacle that was surmounted by a combination of new pipelines and the Air Force's supply of fuel bladders, hydrant systems, refueling vehicles, and trained personnel gathered from all over the United States, Europe, and the Pacific. To meet this requirement, however, the Air Force deployed **92 percent of its entire refueling assets to the theater**. (emphasis added) ...[They] had also deployed to the Gulf 85 percent of all its equipment for operating from bare bases – tents, dining facilities, and so forth. ...[52 percent of the Air Force's HARMs, 63 percent of its LGBs, 63 percent of its Mavericks, and 43 percent of its CBUs were deployed into theater.]<sup>12</sup>

This equipment movement was planned, coordinated and executed by **logisticians**. Whether or not people in the logistics functions of supply systems, maintenance, transportation, general engineering, and health services<sup>13</sup> are seen as warfighters, it should be readily evident that without the logistics capability they provide, our Air Force will be unable to fulfill its role in

concept of logistics as depicted in *Joint Pub 4-0* with the Agile Combat Support competency found in AFDD-1. In order to do so we should understand some of the historical “lessons learned” concerning logistics, and realize that there are myriad of challenges in our future. These challenges can be overcome if we ensure all logistics personnel know and understand their roles and responsibilities as set forth in doctrine.

### Logistics Lessons Learned

The maxim that “failing to learn history dooms one to repeat the same mistakes” is probably the most over-spoken yet under-practiced statement in the military. Many leaders, when pontificating or postulating on a given subject will spout those words and then set policy based

In the plethora of initiatives on efficiencies, some favorite buzz words are two-level maintenance, outsourcing to original manufacturers, and just-in-time inventory. The judgment is that the infrastructure is bloated, systems are archaic and we are living in the past. These charges are not coming from battle-hardened commanders but from industry representatives, think tanks and academia.<sup>15</sup>

He cites as historical precedent the case of the German military in the 1940s. Panzer divisions operated under the concept of two-level maintenance



An eight-aircraft formation of C-17 Globemaster IIIs from Charleston AFB heads toward a drop zone during an exercise. (USAF photo by Staff Sgt. Jeffrey Allen)

almost solely on current information and political restrictions. Our generals, civilian DoD leadership, and elected officials are supposedly taking the advice and counsel of our general officers, who in turn should be getting well-researched advice from their staffs. It is quite probable this is happening, but these same people are also being inundated with information and requests from special interest groups who are looking out for their pocket books rather than our national security. In the area of logistics, history has proven time and again that we continue to make costly mistakes when we fail to learn from history.

In his article, *Logistics: The Past is Prologue*,<sup>14</sup> Deputy Assistant Secretary of the Army for Logistics, Eric A. Orsini begins by saying:

nance and just-in-time inventory. Damaged tanks that couldn't be repaired in the field were sent back to the factory. The logistics concept worked well in the campaign in Poland in 1939 and subsequent campaign in France in 1940, but both were fairly short operations. The Germans declared the two-level concept a success and implemented the plan. Unfortunately this concept was to work against them in Russia. Poor planning (possibly by taking their capability for granted), increased losses due to mines and attack and resulted in high attrition rates due to distance and extreme climatic conditions. The poor logistics infrastructure made the German two-level system impractical. The fix didn't come until 1942 and then it did little good because of

other blunders. The Tiger tank failed because of rushed production and employment without adequate supplies of spare parts. The same thing happened with the mass building of the Panther tank. The Germans sent all 325 Panther tanks into battle and then found defects in the steering and control mechanisms – they all had to go back to the factory. To make matters worse, once the initial problem was fixed the engines were found to be inadequate.<sup>16</sup> Lesson to be learned – you can't short-change any part of the logistics chain and hope to be successful in battle. But has senior leadership learned this lesson?

To answer this question, consider the following excerpt concerning the concept of agile infrastructure from *Focused Logistics*:

[Agile infrastructure] will result in the right-sizing of the logistics footprint through reductions in logistics forces, facilities, equipment and supplies. These reductions will be enabled through significant enhancements to joint logistics policies, structures and processes in inventory management, engineering, maintenance, and infrastructure improvements.<sup>17</sup>

It is difficult to put much stock in a logistics system, which is promised to work, but has not been tested under the worst possible scenarios. Are we making changes to our future logistics capability based on relatively short campaigns as the Germans did earlier this century? The Gulf War may have been won in six weeks, but we had nearly six months to prepare. The recent Kosovo air campaign was perhaps easier logistically, but lasted even longer--78 days. Granted, there were gross inefficiencies in the way we handled the logistic chain in both scenarios. However, much of that was due to our own dealings with the "fog and friction" of war – better to have too much of what you don't need than to have none of what you must have. Is this only true in modern warfare? Not at all!

In his book *For Want of a Nail*, Kenneth Macksey cites Benjamin Franklin's maxim:

For want of a nail, the shoe was lost —  
For want of a shoe the horse was lost —

For want of a rider the battle was lost.<sup>18</sup>

This, along with 13 chapters of text replete with examples of the effects of logistics on war from the early 1800s to 1975 serve as warning to us that we must not "overlook the workings of what may be termed the "logistic equaliser".<sup>19</sup> Macksey cites Britain's failure to maintain her logistical capabilities gained during the Napoleonic Wars as an example of allowing economic policies to subjugate military power. "Whenever military organisations come under financial constraints, they tend to make disproportionate economies in the logistic services compared to the combat arms."<sup>20</sup>

The case is easily made that we are following historical precedence, and putting money into force modernization at the expense of logistical capability. Outsourcing and privatization is an example. "The Commission on Roles and Missions (CORM) of the Armed Forces in 1995 encouraged the DoD to pursue outsourcing and privatization to generate savings that could be applied to force modernization."<sup>21</sup> The operative word in that quote is **could**. Hardly a contractual statement to make the logisticians of the world sleep better at night.

Given that the historical lessons and current policies regarding infrastructure paint a less than perfect picture for the logistics community, how will we motivate our people to meet the challenge? It all goes back to understanding our role in doctrine.

### **Maintaining Doctrinal Focus in the Expeditionary Air Force**

Logistics is traditionally an unglamorous and underappreciated activity. To generalize, when the battle is going well, the strategist and tactician are lionized; it is only when the tanks run out of gas that people go head-hunting for the logisticians.<sup>22</sup>

Regardless of historical lessons, the fact remains that we are in a changing military environment for economic, political, tactical, and strategic reasons. We can and will make changes to our doctrine documents as the need arises. What we must not do is make arbitrary decisions to **disas-**



ply because we gain more attention for ourselves, or our particular career fields, through **association** with other career fields which may be in the limelight. A firm understanding and complete acceptance of our role in doctrine will go far in making every member proud to be associated with the Air Force, regardless of career field. Teaching and demonstrating the importance of doctrine to our newest members may help turn the tide in this era of individualism or association with only those seen as “heroes” or “winners.”

### A Leadership Opportunity

General Patton’s speech to the Third Army as depicted in the movie was cited in the beginning of this paper. The emphasis in the movie and in this paper is on our natural tendency to associate ourselves with “winners.” Many who have watched the movie may have perceived the “winners” as only those front-line troops who fought for General Patton, but he didn’t see it that way. In the movie an important part of his actual speech was omitted, probably due to lack of glamour.

All of the real heroes are not storybook combat fighters, either. Every single man in this Army plays a vital role. Don’t ever let up. Don’t ever think that your job is unimportant. Every man has a job to do and he must do it. Every man is a vital link in the great chain. ...every man does his job. Every man serves the whole. Every department, every unit, is important in this vast scheme of war. ...Each man must not only think of himself, but also of his buddy beside him.<sup>23</sup>

With the Expeditionary Air Force becoming reality in January 2000, we have a golden opportunity to heed General Patton’s words concerning people’s importance. Recognizing logistics as a warfighting skill by inclusion as an Air and Space Power Function, and educating the entire Air Force about each others role in doctrine, will go far toward ensuring that our natural tendency for association remains healthy and focused on our warfighting capability.

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<sup>1</sup> James C. Rainey, Lt Col, *Logistics on the Move*, Air Force Logistics Management Agency, April 1999, 3.

<sup>2</sup> *Patton*, 20<sup>th</sup> Century Fox, 1970, directed by Franklin J. Schaffner.

<sup>3</sup> *The Famous Patton Speech*, Phil Buckley’s G.I. JOE Bar & Grill, <http://www.1918.com/phil/patton.shtml>.

<sup>4</sup> “Career Field Breakdown,” *Airman Magazine*, January 1999, 47.

<sup>5</sup> *Air Force Doctrine Document 1, Basic Air Force Doctrine*, September 1997, 29-35.

<sup>6</sup> *Ibid.*, 45-60

<sup>7</sup> <http://www.defenselink.mil/speeches/1995/index.html>, Vol. 10, No. 107.

<sup>8</sup> *Air Force Doctrine Document 1*, 83.

<sup>9</sup> <http://www.defenselink.mil/speeches/1995/index.html>, Vol. 10, No. 107.

<sup>10</sup> *Doctrine for Logistics Support of Joint Operations*, Joint Pub 4-0, 27 January 1995, v.

<sup>11</sup> *Ibid.*

<sup>12</sup> Thomas A. Keaney and Eliot A. Cohen, *Revolution in Warfare? Airpower in the Persian Gulf* (Annapolis MD: Naval Institute Press, 1995), 176-177.

<sup>13</sup> Joint Pub 4-0, 10

<sup>14</sup> “Insight”, *Military Review*, *Army Command and General Staff College*, November-December 1997, No.6, Professional Bulletin 100-97-78, 63 [online]: <http://www-cgsc.army.mil/milrev/english/novdec97/insights.htm>.

<sup>15</sup> *Ibid.*

<sup>16</sup> *Ibid.*

<sup>17</sup> *Focused Logistics, Joint Vision 2010 : A Joint Logistics Roadmap* (Washington DC: GPO), 34.

<sup>18</sup> Kenneth Macksey, *For Want of a Nail: The Impact on War of Logistics and Communication* (United Kingdom: Brassey’s, USAF School of Advanced Aerospace Studies reprint, Academic Year 1997-1998), xiii.

<sup>19</sup> *Ibid.*

<sup>20</sup> *Ibid.*, 10

<sup>21</sup> *Focused Logistics, Joint Vision 2010*, 35.

<sup>22</sup> William G. Pagonis, *Moving Mountains: Lessons in Leadership and Logistics from the Gulf War* (Boston: Harvard Business School Press, 1992), 8.

<sup>23</sup> *The Famous Patton Speech*, <http://www.1918.com/phil/patton.shtml>.

### Biography

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# What is an Air Force? Why Do We Need One?

W. Alexander Vacca

Recently noted scholar Martin van Creveld has argued that the nature of war has changed to such a great extent that the air forces of the world, as we know them, should cease to exist. He argues that “the age of manned aircraft... is almost certainly drawing to its end,” that naval aviation is on its way out, and what remains in the form of UAVs and helicopters should be returned to the Army Air Corps. Needless to say this position has provoked a storm of debate within military institutions, not least of which the US Air Force. His critics have argued that new technology will not have the effects that van Creveld assumes, and that air forces will survive. However, they miss some major flaws in van Creveld’s argument. Like the proverbial ships in the night they fail to attack some serious problems in the argument. Van Creveld is wrong in his view for three major reasons, he fails to differentiate between great powers and lesser powers, he misconstrues what an air force is, and he is too sanguine about the possibilities of future conflict.

Van Creveld originally wrote his piece for the Royal Australian Air Force. While his arguments may apply to the RAAF, they most certainly do not apply to the USAF. There is a fundamental difference between great powers and secondary powers. At this time the United States is arguably the only great power in the world. Cases can be made for counting China as a great power, and future cases can be made for a European defense identity and for a revived Russia. In the current world, and for the foreseeable future, Australia is not a great power.

Great powers need to be able to project their power globally and swiftly. They are able to do this because their domestic economy generates the money and technology to buy expensive weapons. Lesser powers are lesser precisely be-

tain substantial stores of weapons. Thus when van Creveld notes the prohibitive expense of modern manned air power, he is correct for countries such as Australia. It makes no sense for Australia to spend a large portion of its budget acquiring a handful of modern aircraft. For the regional role that the RAAF is asked to fill, high performance air power is neither needed nor feasible. A completely modern air force of fighters, strategic and tactical bombers, air refueling, air transport, and other aircraft is beyond the reach of all but the 3 largest military powers.

It is unlikely that the Australians will act unilaterally and globally. They may act globally within the strictures of a multinational alliance, or they may act unilaterally in their own region, in places such as East Timor. For these tasks Australia, and other similar states, will not need advanced fighter aircraft. They will, however, still need the ability to support air operations if they hope to play a valuable role in multinational military operations. By choosing to specialize in one or two areas they can build an affordable air force that fills the need of multinational task forces.

However, van Creveld may respond that if many of the smaller powers drop out of the race for air superiority, there is no need for the remaining states to continue developing and maintaining expensive manned aircraft. There are simply no opponents in the skies, and so there is no need for air superiority fighters. There is some merit to this point, but this leads into the next two errors of his argument: fighter aircraft are not the full extent of air forces; and, there is reason to believe that great powers may have reason to fight with each other. Additionally, as long as some regional powers possess fighter aircraft, it is important for the great powers, such as

forces.

Van Creveld's second error is to ignore a large part of what air forces do. He makes a strong argument against air superiority fighters. The F-22 and the Eurofighter are going to be tremendously expensive, and will be available in very small numbers. In addition, there are no opponents that fly aircraft better than our current fighters so there is no pressing need to upgrade. However, an air force is not just a fighter force. Fighters may be the flashiest portions of the force, but air forces also include strategic and ground support bombers, surveillance aircraft, transports, and other support aircraft. I shall now briefly consider each of these groups and explain why manned aircraft are still important.

Fighters are expensive to build and have a very narrow role to play; they shoot down other fighters and thus make it possible for other aircraft to operate freely. It is true that the high cost of fighters means that states cannot afford to build large fighter fleets. During the Gulf War we saw that our fighters were able to destroy large numbers of enemy aircraft easily. Our Air Force is currently large enough to deal with any fighter threat. However most models of combat show that when you decrease your numerical advantage, the superior side will still win, but with more casualties. Thus simply because we could win with less, we should not proceed with less, especially if we are concerned with our casualties.

Bombers are able to bring a tremendous amount of destruction to an area. Van Creveld argues that ground support aircraft and helicopters should be reintegrated into the army, and that missiles can more cheaply and possibly more accurately do what strategic bombers seek to do. This argument may be true, if missiles were able to always do what van Creveld hopes that they will do. However, even in modern conflict bombers have proven to be tremendously useful. In the Sri Lankan civil war, for example, the Sinhalese government have found MiG-27 fighter bombers to be effective at combating Tamil Tiger army formations. These aircraft have not been successful at fighting the terrorist bands of the Tigers, but when the Tigers undertake conventional military operations the aircraft prove invaluable. Additionally, it should be noted that it

would be difficult for the Sri Lankan government forces to acquire the quantity of PGMs necessary for completing the same tasks. Trade in PGMs is restricted, while trade in ex-Soviet aircraft is notoriously loose.

Surveillance aircraft, van Creveld argues, can be replaced by space-based forces. This is taking a major risk. At the moment the United States may have the edge in space-based warfare. However, there is a tremendous amount of uncertainty about the vulnerability of our satellites to enemy action and enemy interference. In addition, enemies that know when the satellites are due to fly over have time to conceal their operations. Only aircraft can be used at random intervals by local commanders to gather intelligence.

Van Creveld counters that the UAV is able to do all that a manned aircraft can do. However there are limits to what unescorted UAVs can do. In most situations in which they have been used UAVs can perform at levels comparable to manned observation aircraft. However, the UAV has not been used in many areas. UAVs have been used for observation, and only then in small numbers. The United States does not maintain UAV fighters or bombers, though it does have smart missiles, which I will discuss later. Further, UAV fighters will never be as good as manned aircraft, for two reasons which the air officer can well understand.

The first reason is the Boyd cycle. The Boyd cycle theory argues that the key to success in a dogfight is to be able to move through four stages of fighting in rapid succession. If an opponent falls behind in their Boyd cycle they are easy prey in a dogfight. UAV's will always fall behind. It takes time, albeit not much time, for information to travel from the camera to the "pilot" on the ground, and then back up. Even with wireless communications a lag is present, communication is not, and will never, be truly instantaneous. When fighters are flying greater than the speed of sound against opponents traveling at similar speeds, this slight delay is important.

Even more important is that wireless communications are open to electronic jamming. As we have found out with cyber hackers on the internet and over cellular lines, every safeguard can be broken by a determined opponent. When

communication lines cover hundred of miles, and are not contained in wires, it is always possible that the opponent will find a way to sever or disrupt those lines. At such a time an air force of solely UAVs and PGMs will not be worth much. Having the ability to put humans on the scene to destroy enemy aircraft, conduct observation, and deliver ordinance to targets will always be important. It may be that in many cases such a capability would go unused. However, if the United States is to remain the preeminent world power it is imperative that the Air Force be able to act, even if our opponent builds jammers. Manned aircraft need not make up the bulk of the future USAF, but they should continue to exist.

Air transports are tremendous tools for moving soldiers and supplies around the world. They are the only device that give great powers the ability to shift powerful land forces globally at short notice. All wars, even the low intensity wars that van Creveld feels will be the sole form of future war, require soldiers to fight them. Even in cases when the United States is not engaged directly, air supply is the quickest way to send aid to our allies. Naval transport can ultimately carry more, but it takes in excess of a month for ships to be loaded, sent out, landed, and unloaded. There would be no great savings by making air transport unmanned.

There are numerous other kinds of support aircraft, most notably air refueling units. These units make it possible to fly aircraft continually and to fly long distances without needing to land at friendly bases. These units are essential if the United States wishes to be able to fly to any part of the world within 24 hours. The complicated tasks performed by these aircraft are not yet able to be entirely subsumed by machines. Perhaps the time will come when they can be replaced, but that time is far more distant than van Creveld seems to imply.

All of the above types of aircraft are vulnerable to enemy fighters, even relatively low technology fighters. As long as the United States sees a role for the above aircraft, there needs to be a role for fighters. As I have argued, UAVs can support, but not entirely supplant, manned fighter aviation.

Additionally, in his attack on carrier-based aviation, van Creveld dismisses the notion of the carrier as a movable base. He feels that as air

power is not needed, it follows that bases, especially expensive floating bases, are not needed. However, as I am in the process of arguing, air power is needed, and thus carrier aviation is still necessary for states that wish to have a global reach. Carriers are only superfluous if we dispense with manned aircraft and rely on UAVs and PGMs. In such a case the arsenal ship would be able to serve effectively. However, complete reliance on such a system is dangerous, for precisely the reasons that I have listed above.

Finally, van Creveld argues that the anti-shipping role of aircraft, especially, but not entirely, naval aviation, can be subsumed by missiles. While he is correct that missiles can perform some of the tasks of anti-shipping aviation, he fails to note some of the drawbacks of an anti-shipping policy with no air component. These must be balanced against the greater costs of the maintenance of anti-shipping aircraft.

The key issues are the range of weapons and the time of flight. While we have missiles that can be launched at ships, we have to realize that ships have anti-missile capabilities. Given a long lead time before impact, ships can deploy a variety of anti-missile countermeasures. Such time lags are negligible if we are trying to sink ships near our bases, but are important if we needed to sink ships in the Gulf of Sidra, for example. Anti-ship missiles launched from the air have a shorter time in flight, and may be launched closer to the target. As a result many of the anti-missile capabilities of ships may be negated by the short time in flight of the missile.

Combining air launched weapons with other missiles in a single attack on shipping has tremendous benefits. First of all the target ships will need to carry countermeasures against multiple types of weapons, and thus can carry less of any one type of weapon. If they do not do this, they will be particularly vulnerable to attack by certain weapon types. If militaries do not use aircraft in antishipping roles, but rely instead upon missiles fired from a longer distance, then the target ships will be able to safely drop air defenses. However, by maintaining the threat of air attack we force potential enemies to devote a portion of their resources to air defense. Even a small attack force can force an enemy to devote large sums of money and scarce shipboard space to anti-aircraft weapons. By maintaining the

ability to attack ships with many different types of weapons, we ensure that the cost of defending against our attacks is high, and thus there can be fewer well defended ships belonging to our enemies.

Secondly, the best precision guided munitions are both expensive and hard to manufacture. Mid range states may find it more economical to use cheap aircraft in an antishipping role, rather than expensive missiles. These states may have a limited supply of weapons, or be denied access to key electronic components by the governments of supplier states. If that were the case aircraft, while more expensive than PGMs, would also be far more available, and might then be used.

The high cost of PGMs has also limited construction, even by the United States. During the war against Serbia the United States faced the very real possibility of exhausting its entire stock of PGMs, while suppliers, such as Raytheon, proved unable to ramp up manufacturing

Finally, van Creveld is too sanguine about the possibilities of future war. He argues that war will either be low intensity conflict and/or non state conflict. In any event it is unlikely that we will see air forces fighting each other. He is wrong for two reasons. Conflict may be high intensity and air power is essential in low intensity conflict.

The issue which concerns US planners more than feeding Somalis or bothering Saddam Hussein is China. China need not be our enemy, but given US preferences about the future status of Taiwan, the Spratly Islands, and Indo-China, it is certainly possible that the United States and China will be adversaries. In that event, air power would be critical, and the types of conflicts which may take place all look like standard conflicts. Possible invasions of Taiwan or the Spratlys would involve Chinese sea and air transports, possibly with little warning time. In these events, the United States could respond flexibly and rapidly in a way that has yet to be authorized (or much less built)—such as with “arsenal ships.” In the event that China threatened to blockade Taiwan or sink US warships with conventional or even nuclear weapons, only the Air Force, meaning bombers and supply laden transports, backed by fighters, and kept aloft by air refueling wings, would be able to thwart Chinese ambitions.

Short of a war with China, Russia has

shown that there is some utility to having an air monopoly in the non-traditional Chechen war. Command of the air gave the Russians the ability to ravage huge swathes of territory at will. Between the two extremes we have the Gulf War, in which it was shown that our air force when combined with our army can inflict tremendous losses on the armed forces of the enemy. Even against a more competent opponent our air force makes movement in the open within miles of the forward edge of battle area a very dicey proposition.

Van Creveld makes the same mistake that early opponents of air power made in the 1930s. In his analysis of the use of air power in the Italo-Ethiopian War, Carl Spaatz attacks critics who felt that the minor role played by air power in that war proved the limited utility of air power. He notes:

[They] felt that the Italian bombardment and attack aviation should have been quickly decisive against a foe whose only air defense at the outset of war consisted of 24 anti-aircraft cannon and 12 inefficient airplanes. When the fighting continued for three quarters of a year, the debunkers of air power won many converts to their cause... Those onlookers who condemned air power as relatively ineffective did so because they committed the folly of thinking that the Ethiopian campaign presented a parallel situation to what would occur in a war between industrial powers.

In essence van Creveld makes the same error. He argues that the lessons of the past few years make air power irrelevant. However, while he makes the case that air power is irrelevant for some previous conflicts, he does not make the much more controversial case that all wars will follow in the pattern of his recent examples. Indeed, there is much theoretical argument and empirical evidence to suggest that such an outcome is a very remote possibility. War is likely to continue to be a tool used by states to advance their interests. As I have argued, future conflicts involving China, North Korea, or other regional powers will have air components. In such cases it is imperative that the United States have the ability to fight and win. In non-traditional wars, air power is of limited utility; however, so are navies

and most, if not all, of the world's armies. Van Creveld does not advocate junking armies and navies because they cannot prevent cults from releasing gas in the Tokyo subways or stop terrorists from bombing buildings, yet he tries to use the same logic to argue against air power. Simply because some, even most, of the future security threats that the United States will face will not require that we use all of our military tools is not a reason to toss those tools out of our toolbox. Occasions will still arise where traditional militaries will be the best tools for the problem.

Van Creveld is correct that air superiority is neither necessary nor sufficient for victory in all kinds of wars. However in cases where it is used, it can reduce casualties and it can perform tasks that other weapons can not. Perhaps there is indeed a trend toward fewer national air forces made up of less airplanes, especially less fighters. This trend does not, however, mean that the United States should rush out and junk its air force. As I have shown the new technologies which van Creveld argues can replace the Air Force are not as developed

as he would seem to suggest, nor are they as economical for all states. The manned Air Force should continue to be a key portion of the US defense establishment.

### Biography

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USAF MH-53J Pave Low IIIIE helicopters of 20th Special Operations Squadron, Hurlburt Field, FL, on exercise.  
(USAF photo from [www.af.mil/photos/images/helicopters\\_mh53.0002.jpg](http://www.af.mil/photos/images/helicopters_mh53.0002.jpg))



# The 21st Century Air Force: Will the Airman Survive?

Colin Henderson

As a US Air Force Academy cadet reading Dr. Martin van Creveld's article "New Era Security: The RAAF in the Next 25 Years, Air Power 2025," it is difficult to respond to his perspectives and predictions from anything other than a defensive posture. He asserts that modern air forces are rapidly becoming obsolete and will virtually disappear in the future. Dr. van Creveld addresses the relationship between air forces and the political organizations that own them, the predicted nature of future warfare, and how air forces will likely respond and adapt to these issues.<sup>1</sup> While the first two topics can be closely related to one another and the observations and evidence presented reasonably defended, the conclusions drawn are extreme. Dr. van Creveld raises some thought provoking ideas in defense of his argument, but his vision of the future of air forces is flawed by his failure to explore fully other important aspects of air and space power – making his predictions unlikely to be realized.

## **Air Forces, States, and the Changing Nature of Conflict**

Looking first at the relationship between air forces and political organizations, Dr. van Creveld states that throughout history, the only organizations capable of owning and maintaining an air force were states. This was because air forces, composed of even a single aircraft, had high procurement costs and required a vast support network of personnel and resources to keep the planes flying. Today, the cost of fielding an air force has become prohibitively expensive for all but the wealthiest of states.<sup>2</sup> Dr. van Creveld also points out that only the larger states possess the land resources required to operate and maintain air bases. For maximum effectiveness and survivability, bases are often located deep within

to accommodate long runways and to provide a degree of protection from enemy attack. Finally, Dr. van Creveld explains that air forces are also unique to states because they have well-defined borders. As such, most aerial combat or bombardment is conducted outside a given state's border and within an enemy's own territory to minimize the prospect of friendly fire casualties.<sup>3</sup> With these points in mind, it is understandable why Dr. van Creveld concludes that states have been the only organizations capable of operating and maintaining an air force.

Taking this concept a step further, Dr. van Creveld believes that, since only states have the means to operate an air force, the wars in which they become engaged are generally against other states.<sup>4</sup> In this situation, the use of air power is effective since targets are usually well defined and separation exists between soldiers and non-combatants, reducing the risk of collateral damage and the killing of innocents. Of course, this is an ideal situation within a well established international order of nation-states.

In contrast, the current world situation does not present clearly defined conflicts between nation-states. Instead, a new, and more complex, environment has taken its place and is known for its increasing levels of fragmentation "along the same geopolitical and cultural fault lines that have separated civilizations for millennia."<sup>5</sup> As a result, the nature of future warfare will change. Rather than a single, well defined opponent, it is likely that combat operations conducted by a state, such as the United States, will be against an enemy characterized by undefined borders, decentralized guerrilla or militia-style troops, and sub-conventional, low-intensity conflict in uneven terrain with the enemy forces in close proximity to civilians. The effectiveness of



are hesitant to place the lives of non-combatants at risk and, therefore, will choose to scale down the use of air power for this reason.<sup>6</sup> While this aspect presents a considerable limitation to the overall use of air power, it is not enough to warrant Dr. van Creveld's claims that air forces will become obsolete.

Air power will continue to be effective in conflicts between states where large-scale combat is expected to prevail. However, given that interstate conflict seems a reduced possibility in modern times, new techniques and theories for the application of air power in a multi-polar world, such as to conduct limited and low-intensity operations, will undoubtedly emerge. Thus, it is highly likely that the flexibility of air power will be reaffirmed and air forces will remain in existence.

### **Visions of the Future – Corrected to 20/20**

To this point, Dr. van Creveld's observations and evidence have been well founded, though his conclusions too extreme. More serious is his flawed and incomplete development of an air force vision for the future.

At the beginning of his argument, Dr. van Creveld states that most air forces throughout the world have already disappeared as a result of post Cold War efforts at military downsizing and defense spending reduction.<sup>7</sup> In the absence of the traditional bipolar threat which dominated the past fifty years, a sense of security and complacency prevails that downplays the need for a military forces. Dr. van Creveld also explains that air forces have experienced their decline alongside the development of new weapons that do more with less (e.g., smart bombs vs. dumb bombs) and increased use of space and missile related warfighting assets.<sup>8</sup> In addition, he envisions that Unmanned Aerial Vehicles (UAVs) and helicopters will gradually replace modern combat aircraft. UAVs may be able to perform a wide spectrum of hazardous missions, ranging from reconnaissance to combat operations, without putting human lives in the line of fire, while helicopters can transport troops and supplies to a battlefield, evacuate wounded, serve as flying command posts, and "deliver devastating quantities of very accurate firepower at selected targets" due to their slow-speed maneuvering and

handling characteristics.<sup>9</sup>

### **Lessons of History**

Dr. van Creveld's arguments have important shortcomings. First, it should not be forgotten that between the end of World War I and the outbreak of World War II, a similar phenomenon occurred as the United States reduced its military forces while adopting a national security policy of isolationism. As a result of this decreased vigilance and a lack of perceived threats, the United States was caught off guard by the surprise attack on Pearl Harbor by the Japanese, and ultimately drawn into World War II.<sup>10</sup> It is important to prevent another "lapse into complacency just because the United States is the world's sole surviving superpower."<sup>11</sup> Therefore, the United States must remain vigilant to a variety of new and potential threats which may arise as a result of multi-polar fragmentation and the proliferation of weapons of mass destruction. A strong military posture must be maintained throughout the world and the Air Force is the perfect instrument for providing forward presence and global reach as means of deterrence.

### **New Technology**

Although significant developments in weapons technology have made modern day precision munitions (PGMs) far more accurate and lethal than their "dumb" iron predecessors, van Creveld jumps to the conclusion that this has initiated a reduction in the importance of air forces. On the contrary, PGMs allow a small number of aircraft to accomplish the same mission required of great fleets in the past, leaving the remaining aircraft free to concentrate their firepower on other targets. In short, the economy of force of modern air forces stems from their ability to concentrate mass precisely on target. Such efficiency should not be perceived as a need for fewer aircraft, or a decline in the importance of air forces, but instead as a tribute to the quality and versatility of modern air power.

In terms of space and missile related warfighting assets, Dr. van Creveld places too much emphasis on these items. He addresses missiles as a primary weapon and mentions the possibility of anti-missile defense systems. In the event of conflict, however, those countries having access

to nuclear missiles will be extremely reluctant to use them against one another, lest they face mutually assured destruction. And missile defense systems are likely to have a long and tortured road to operability, due both to their technical requirements and to their political consequences – such as the Anti-Ballistic Missile (ABM) treaty of 1972 that places restrictions on the development of such defense systems.<sup>12</sup> Aircraft with conventional weapons will still serve as a vital national asset and as a means to project convincing and decisive air power onto an enemy without having to resort to nuclear missiles.

Also relevant to space is Dr. van Creveld's idea that an increased reliance upon satellites used for communication, navigation, surveillance, reconnaissance and damage-assessment will require a limited staff of operators further reducing the number of personnel serving in air force uniforms.<sup>13</sup> However, before he places all his eggs in one basket, Dr. van Creveld should consider the threats posed by hostile forces that could potentially destroy ground-based satellite tracking stations – rendering an entire constellation of satellites useless. Furthermore, there is a possibility that a determined enemy would “detonate a nuclear weapon in the Van Allen belt, causing a blanket disruption of many of the West's most vital satellites.”<sup>14</sup> Should something like this occur, a state without an air force would be in a very vulnerable position. It seems prudent to shy away from a total reliance on space-based systems and to retain air assets such as the U-2 that are capable of providing intelligence and communications until new satellites could be launched and stationed in orbit.

### **UAVs and Helicopters**

Dr. van Creveld also maintains that, instead of conventional aircraft, UAVs and helicopters will be the primary instruments of air power in the coming years. Among the advantages offered by UAVs is the fact that they can often fly faster, and perform far more aggressive maneuvers to evade enemy anti-aircraft defenses, since their structural g-limit is much greater than that of the human body. Although this sounds promising, an autonomous UAV controlled by a microchip will never have the ability to make the

type of split-second decisions and judgment calls that allow a pilot to react and adapt his or her mission to changes within the battlespace. In addition, even if a UAV is “flown” by a human “pilot” sitting in a ground station, there is no way for that individual to have the same type of situational awareness of a pilot actually sitting in the cockpit. Therefore, UAVs are unlikely to be able to achieve the degree of flexibility enjoyed by manned aircraft.

And helicopters can not really be compared to modern air force aircraft. Dr. van Creveld claims that helicopters are more versatile than aircraft due to their ability to transport troops and supplies into a battlefield, evacuate wounded personnel, serve as a flying command post, identify targets, and “deliver devastating quantities of very accurate firepower at selected targets” due to their slow-speed maneuvering and handling characteristics. What Dr. van Creveld fails to address, however, is that modern aircraft can perform all of these missions as well, and arguably better, than a helicopter. In terms of airlift, transport aircraft, like the C-17 Globemaster III, can deliver and extract greater quantities of troops and supplies than a helicopter, virtually anywhere in the world thanks to their short-field take off and landing capabilities. The E-4B is an example of a current airborne command post that is likely to have a greater time on station, compared to any helicopter, thanks to its large crew and aerial refueling capability. In terms of identifying targets, the U-2 can once again provide a greater time on station (in excess of nine hours) than a helicopter while gathering a vast array of reconnaissance data with numerous sensors that a relatively small helicopter would probably not be able to carry. Finally the fact that the helicopter can deliver “devastating” firepower due to its slow-speed maneuverability and handling characteristics, will most likely give it the honor of being the first target shot out of the sky. Helicopters usually have a much lower ceiling than conventional aircraft, so they will be more susceptible to small arms fire from the ground and other anti-aircraft weapons. This is not to say that aircraft are invincible, because they are certainly threatened by other defenses such as SAMs, but they will likely have a greater survivability rate in comparison to helicopters. Weighing all these

considerations together, the helicopter simply does not stack up in comparison to the capabilities of its fixed-wing counterparts.

Lastly, an air force has the unique ability to maintain air dominance over a region through the continuous enforcement of no-fly zones. From an enemy's perspective, it is difficult to imagine being intimidated by a no-fly zone enforced by small, unmanned aircraft or even helicopters for that matter. In this role, manned air force combat aircraft, such as the F-15 and F-16, serve a very important role in projecting an intimidating forward presence to help deter hostile forces and regional bullies from stepping out of line.

## Conclusion

In retrospect, Dr. Martin van Creveld's predictions regarding the obsolescence and disappearance of air forces in the 21<sup>st</sup> Century are extreme to say the least. Although his observations on the relationship between air forces and political organizations and the changing nature of future warfare are reasonable, he has misjudged the versatility of air forces to adapt to new challenges. While a relatively stable period of potential bi-polar interstate conflict, previously accepted as the norm, has been transformed into an unstable era of limited, low-intensity, and possibly multi-polar combat, there is no doubt that air forces will be able to draw upon their own flexibility and adapt to the changing world. It is highly unlikely that air forces will disappear as predicted by Dr. van Creveld. Instead, their role in the preservation of national security and the projection of forward presence in unstable regions will continue to increase, ensuring that this future pilot will have a job in the 21<sup>st</sup> Century.

<sup>1</sup> Martin van Creveld, "New Era Security: The RAAF in the Next 25 Years, Air Power 2025," *Airman-Scholar* Vol. 6, No. 1 (Spring 2000), 5.

<sup>2</sup> *Ibid.*

<sup>3</sup> *Ibid.*, 6.

<sup>4</sup> *Ibid.*

<sup>5</sup> Robert H. Scales, *America's Army: Preparing for Tomorrow's Security Challenges* (Carlisle: U.S. Army War College, 1998), 2.

<sup>6</sup> van Creveld, "New Era Security," 7.

<sup>7</sup> *Ibid.*, 11.

<sup>8</sup> *Ibid.*, 12.

<sup>9</sup> *Ibid.*, 13.

<sup>10</sup>

Scribner's, 1982), 87.

<sup>11</sup> Benjamin S. Lambeth, *The Transformation of American Air Power* (Ithaca: Cornell University Press, 1982), 319.

<sup>12</sup> Lambeth, *Transformation of American Air Power*, 243.

<sup>13</sup> van Creveld, "New Era Security," 14.

<sup>14</sup> Lambeth, *Transformation of American Air Power*, 246.

<sup>15</sup> George Friedman and Meredith Friedman, *The Future of War* (New York: Crown Publishers, Inc., 1996), 298.

*Blackbird* by Phillip Schembri, USAFA '01. Courtesy of the USAF Academy Department of English and Fine Arts.



## Biography

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# On the Need for a US Air Force: What van Creveld Overlooked

Matthew E. Nussbaum

The complexity, dynamics, and ramifications of sound defense planning are uniquely significant. Poor defense planning can lead to the collapse of empires and thrust entire regions into chaos; good defense planning requires forward vision, adaptation, and focus. For example, the failure of the French military to understand the lethal capabilities of artillery and machine guns in World War I cost them a painfully large proportion of their army. Technological and doctrinal mistakes change history. The dilemma can go the other way, however, because countries have invested time and resources into weapons technology that ended up playing insignificant roles in wartime – a misallocation of resources that can also lead to devastating defeat. Soldiers, sailors, and airmen place their trust and lives in the forward thinking of planners and leaders. In modern warfare, an advantage gained in minutes or hours may never be recovered. It is easy to conclude that national defense, perhaps even national survival, depends on the recommendations of modern military strategists. If these strategists, like Dr. Martin van Creveld, believe that combat aircraft – the fighters and bombers at the heart of modern air forces – are no longer significant weapons of war and should be abandoned, they are making a bold but likely flawed and dangerous prediction.

Van Creveld believes that air forces as we know them are outdated institutions and unnecessary expenditures to nation-states.<sup>1</sup> He introduces a number of interesting arguments regarding the future of air forces, but fails to address adequately certain counterpoints that show the crucial and continuing importance of combat aircraft to national security. The next few pages overlay van Creveld's premise against why, because of bureaucracy, the US Air Force still has a healthy future, and why, because of strategy and

## Why Air Forces Have a Future

The foundation of van Creveld's argument rests with the changing nature of international affairs. He believes that only large nation-states can own air forces because only they have the environment, resources, and funding to equip, train, and sustain combat aircraft.<sup>2</sup> He also argues that war between powerful states is highly unlikely because of the danger of nuclear war.<sup>3</sup> Several states are clearly capable of funding combat-ready air forces but, according to van Creveld's logic, they would choose not to do so because the deterrent effect of nuclear weapons precludes the need for an air force. On the other hand, when countries like the United States engage in low intensity conflicts, he argues that their combat aircraft are incapable of supporting war aims.<sup>4</sup>

Van Creveld believes that future air forces will consist primarily of unmanned aerial vehicles (UAVs), light tactical transport aircraft, helicopters, missiles, cruise missiles, anti-missile defense systems, satellites, and space systems but will have few if any fighters and bombers.<sup>5</sup> "If present trends persist, thirty years from now most air forces will have dissolved into space commands on the one hand and some form of air cavalry on the other."<sup>6</sup> These air assets will be consistent with the nature and objectives for projected combat between states and non-state actors where, according to van Creveld, manned combat aircraft are ineffective and rarely used.

## Tactics and Strategy

The first thing students of air power history and strategy are taught is that to defeat an enemy in war, you must first control the air. This is a complicated issue. War is an extension of policy, a violent but structured attempt to manipulate the enemy into doing what you want it to

test of wills between rival intelligences.

All militaries also need certain requirements to operate, such as transportation, communications, basing, and support. If any one of these aspects of a military campaign is disrupted, the effects can shake the entire war effort. To cut communications, for example, militaries have a plethora of options – each suited for a particular situation. The choice of what weapon to use is based on a cost-risk scale: if enemy communications absolutely must be destroyed, then it makes sense to use the weapon with the highest probability of kill, regardless of the risk; if the target is not significant, however, then a safer weapon would be considered – with the understanding that the objective may not be accomplished. Each choice places servicemen at risk, and each choice brings a different probability of kill. In other words, there is a situation for which each military option is best suited. Many situations, of course, call for the surprise, speed, accuracy, power, and capabilities of Air Force assets.

While stealth aircraft have advantages in relative safety, high probability of kill, rapid deployment, and quick damage assessment even in hostile enemy environments, other missions and assets require a significant degree of air superiority. Dropping psychological leaflets in enemy controlled territory, for example, can be effective both in traditional warfare and nontraditional conflict such as counterinsurgency campaigns. But the airspace must first be made safe for the operation of the psychological aircraft – that is, air superiority must be achieved. In modern war of any nature, missions from reconnaissance and surveillance to noncombatant evacuation and even interdiction bombing all depend on the premise that the airspace is safe. On the ground, the persistent need for territorial combat and occupation demands air superiority to protect and support Army and Marine Corps operations.

Today, it is almost a guarantee that the airspace will be safe because of the proficiency and equipment of American pilots. There is no reason to allow their disappearance! On the contrary, it is critical that they be maintained to support current missions and to protect American airspace should it ever be jeopardized.

## **The Momentum of Red Tape**

The theory of a diminishing need for US Air Force pilots threatens the morale of junior officers and officer candidates. Many young members of the Air Force have staked their futures on a dream of flying combat aircraft for their country. Perhaps someday air forces will exist only in textbooks and the minds of historians, as archers and knights do today, but time and bureaucracy favor today's young Air Force officers and officer candidates.

While van Creveld is not alone in his theories, far more people see a long future ahead for air forces – especially the US Air Force. Many supporters of the Air Force are very influential and powerful in the US government. It is a large part of one of the world's largest bureaucracies, which by design and habit are slow to change. When altering military structure and resources, the government requires strong evidence in support of change and stronger indications that the change will result in favorable conditions. Consider the Goldwater-Nichols Act of 1986: it took a series of poorly executed and costly military operations in the 1970's and 1980's to provoke the government into radical doctrinal changes in its defense structure and operations.

Bureaucratic alignment favors the contemporary force mix of a strong and diversified US Air Force. It has an inventory of well over a thousand aircraft, 189 domestic installations, 17 international installations, and hundreds of thousands of highly-trained officers and enlisted supporting the traditional orientation of its mission.<sup>7</sup> Furthermore, the Air Force as it is currently constituted is popular and viewed as highly successful. It can conduct precise, timely, and devastating missions with a high probability of success and with reasonable assurance that pilots will return. Operational costs are high, but on balance preferable to many alternatives.

Van Creveld does not propose that air forces restructure of their own accord, but argues that the international environment is forcing them to do so. While perhaps true, van Creveld's timeline is far too short to be realistic. Thirty years from now, there will no doubt be an increased incidence of UAVs, space operations, and other propositions van Creveld suggests, but there will also be new combat aircraft like the F-22 and Joint Strike Fighter in the Air Force in-

ventory, plus C-17 heavy strategic transports. Before the US Air Force as we know it is retired, it is likely that the United States would have to be engaged in a series of wars where its air force plays only a minimal and insignificant role. At present quite the opposite trend is in place; the Air Force is ever more likely the intervention force of choice. The radical changes van Creveld predicts will take far longer than he has proposed and there should be more generations of combat pilots making an impressive and admirable history for themselves.

## Moral Issues

*The greater the power, the more dangerous the abuse.*

*Edmund Burke*

An air force is a package of options. If warfare is the extension of politics, then air forces present national leaders with a number of different choices when non-violent means of conflict resolution fail. Unfortunately, if given too much power or too many options, there is a risk that civilian leaders will cease negotiating and simply resort to military strength unnecessarily. The following is a brief ethical argument that the United States should try to avoid van Creveld's predictions.

The rationale of incorporating UAVs into an air force arsenal is specific: UAVs do not require expensive and performance limiting systems to accommodate a pilot, so design constraints are fewer and more cost-effective delivery systems can result. An unmanned reconnaissance aircraft can orbit for hours above a troubled area in all-weather conditions far from safety and can theoretically out-perform manned aircraft.<sup>8</sup> Operator training is also less time-consuming and expensive. The crucial final benefit is that UAVs can be sent on any mission without regard to a pilot's life. If UAVs are as capable as current aircraft, then the only associated risk of using them is financial. While they would not be an inexhaustible national resource, they could certainly be used far more freely.

This is exactly where the problem lies. Politic leaders may be tempted to employ UAVs far more liberally than manned combat aircraft.

Presently their missions are confined to reconnaissance and surveillance, however, options are currently being explored to give them combat roles. We have already witnessed, for example, the controversial US use of long-ranged cruise missiles in punitive attacks against suspected terrorist facilities. The result of the development of combat UAVs could be that, where before risk and cost were associated with military actions, in the future these might be only minor considerations. It is consequently possible that military engagements would increase in frequency. While pilots would not be in jeopardy, undoubtedly other human beings would be. What would be the limiting factor in war if the cost of its initiation was minimal? Only the discretion, self control, and morals of the leaders of the nation employing UAVs would limit the application of violence to an acceptable level. It would be possible that a condition similar to total war could be achieved without much manpower involvement and sacrifice by the attacking country. Many people worldwide believe the United States is at present too active outside its borders.<sup>9</sup> Greater international involvement in pursuit of US interests could increase anti-American sentiment unnecessarily; UAVs would only aggravate such a state of affairs.

There are certainly benefits to using UAVs, most importantly to save the lives of our nation's airmen. However, those men and women have willingly accepted the risk of their profession with the hope that a greater good would result.<sup>10</sup> Furthermore, they have been trained and encouraged to exercise good judgment. The vast majority of American soldiers, sailors, and airmen would not commit immoral acts, a good UAV simply follows the computer instructions it is fed. This presents a more subtle problem than just the indiscriminate use of aerial firepower. UAVs could be operated in immoral ways at the discretion of a nonmilitary – nonprofessional controller. Furthermore, there exists a number of tactical problems with not having a pilot on scene in combat. Good airmen understand that if they can not communicate with their superiors during combat and need to change tactics at the last minute, they are justified in making the needed changes so long as the end goal is the same. Can UAVs make moral decisions or sound and justi-

fied tactical changes during battle? Of course not! Hence, not only could illegitimate missions be supported, but legitimate missions could be poorly executed.

Ethical problems arise at all levels through the employment of UAVs in combat. Violence may increase in frequency and discretion may cease to be exercised, with profound effects on the conduct of war. There are few good reasons to place US servicemen in harm's way, but there are also few good reasons to use military firepower at all to accomplish national objectives. In short, UAVs remove a check on the willingness of leaders to resort to violence.

### Summary and Conclusion

Dr. Martin van Creveld is a visionary of sorts. And he may well be correct: one day, current and traditional air forces and their missions could become obsolete. But that day is far in the future. Van Creveld is before his time and history may look back on him favorably, remembering which of his predictions came true and forgetting the rest – as has been generously done with other great intellectuals.

The nature of warfare will continue to change, perhaps the day of interstate warfare will return, or perhaps it is gone forever. Either way, the need for strong and professional air forces will remain for many decades to come. UAVs, light transport, helicopters, space operations, and close air support will continue to grow in importance. However, all of these missions can and will only operate under the protection of US Air Force fighters and bombers. American combat pilots are not yet finished making history.

<sup>1</sup> Martin van Creveld. "New Era Security: The RAAF in the Next 25 Years – Air Power 2025," *Airman-Scholar: A Journal of Contemporary Military Thought* Vol. 6, (Spring 2000): 5

<sup>2</sup> Ibid., 5.

<sup>3</sup> Ibid., 10.

<sup>4</sup> Ibid., 7.

<sup>5</sup> Ibid., 14.

<sup>6</sup> Ibid.

<sup>7</sup> American Forces Information Service. "Places." *Defense Almanac* (1999). Online, Internet, <http://www.defenselink.mil/pubs/almanac/>, 1 October 2000.

<sup>8</sup> "The maiden flight of DarkStar: U.S. military puts new, robotic eye in the sky," *Cable News Network Online*, 29 March 1996.

<sup>9</sup> Susanne Daley, "Europeans find plenty of fault with America,"

<sup>10</sup> Lecture by Colonel Darrel Whitcomb, USAF (Ret.) on the reasons Americans conduct CSARs, US Air Force Academy CO, 14 April 2000.

*Gemini Aloft* by Amy Ringwald, USAFA '01.  
Courtesy USAF Academy  
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### Biography

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## **Next in *Airman-Scholar*:**

The **Spring 2001** issue of *Airman-Scholar* will focus on “war stories.” We know that most current and former members of the armed services have had unique experiences that would be of interest to their peers, but have perhaps lacked appropriate incentive and forum to express them. Here is your chance! We hope to print 10 to 15 short war stories in the spring issue and urge you to consider submitting an article for publication. In a break with tradition, we will also consider publishing 1 or 2 articles of fiction dealing with the war stories theme.

*Airman-Scholar* invites both full-length articles and short “letters to the editor” comments. Please submit in accordance with the following guidelines:

1. Full-length articles should be approximately 6,000 words in length, although all submissions will be considered.
2. Articles should be submitted as hard copy with accompanying 3.5 inch disk (not returned).
3. Articles will be edited to conform with *Airman-Scholar* format; proofs will not be sent to authors prior to publication.
4. Articles are encouraged from all knowledgeable members of the academic and military communities. Publication of outstanding papers by USAFA and other service academy cadets is a particular goal of *Airman-Scholar*.
5. Articles must be received by **1 April 2001**.
6. Send articles to:

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